

# THE MICHIGAN FARMER,

A WEEKLY JOURNAL OF AFFAIRS

Relating to the Farm, the Garden, and the Household.

NEW SERIES.

DETROIT, SATURDAY, DECEMBER 3, 1859.

VOL. 1., NO. 49.

## The Michigan Farmer,

R. F. JOHNSTONE, EDITOR.

Publication Office, 130 Jefferson Avenue,  
DETROIT MICHIGAN.

The MICHIGAN FARMER presents superior facilities to business men, publishers, manufacturers of Agricultural Implements, Nursery men, and stock breeders for advertising.

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## The Farm.

### The Garden of the Agricultural College

The garden operations of the Agricultural College having been closed up with the term, the students having departed, and the season over, it will be a matter of interest to many of our readers to know what has been done in that direction during the past season.—The piece of land that forms the garden lot, is a rough, irregular shaped lot containing altogether about twenty acres, but of which as yet, only about eight acres have been put in cultivation or used for garden crops. It extends north and south from the Middletown road to the banks of the Cedar river, and east and west from the College grounds to a point formed by the road and the river. The west portion has never yet borne a crop, being the location of the brick yard, and very much cut up into holes and gullies where the water holes, clay pits, and sand pits of the brickmakers had been excavated. A good deal of labor was expended during the past summer in trying to fill up a number of these holes, and get this part of the garden into some kind of arable shape. This portion was sown with buckwheat the last week in June, but the frost of the fourth of July last seemed to affect a portion of the field, as the seed, though good, did not grow, and that portion of the crop which did come forward, was completely ruined by the frost of the 28th of August. The eastern division of the lot is also much broken in surface, a ravine running through one side and separating it from a piece of new land, which was plowed up for the first time the past season, and sowed with turnips. Along the river bank, also, is a tract of bottom land, which is overflowed each season, and which extends back for some distance until it reaches the bank that forms the boundary of the higher ground on which is located the garden proper.

It will be borne in mind that the College term of the present season commenced on the 6th of April, and that of course little or no work could be done in the garden previous

to that time, as there were no hands to do it. Some of the students, however, had remained over from the previous term, and one of them had been interested with the garden work, at which he continued the whole season, and acted very efficiently in this department so far as it has been pushed. Three hot bed frames had been started on the 21st of March but as no provision had been made the previous season for a supply of the proper material and soil to give the plants started in them the best conditions for their growth, the products did not amount to much for use, with the exception of a quantity of tomato plants and cabbages, which, though somewhat slow of growth, owing to the poverty of the soil used for the beds, finally turned out well, though somewhat late. When we first examined the garden, with a view to raising crops for the use of the boarding house, it was found that there had as yet been but very little progress made in reducing a large portion of the lot into any condition as a garden. A small portion, probably about two acres, had been cleared of stumps, and had been laid out in temporary beds for the raising of vegetables, and a small nursery of quince stocks and of seedling peach trees had been grown in rows, some of which had been budded, but there were no plantations of small fruits on any scale which would prove of the least service for a crop, neither were there beds of asparagus, nor of pie plant, and a large portion of the ground in the garden lot had only been previously used for field culture. With a boarding hall containing at least one hundred persons, which were to be supplied with vegetables for the season, and which ought to be supplied with small fruits, also, at the earliest possible period, it was deemed important to lay out beds of vegetables, and of small fruits on a scale that would ensure at least the beginning of a home supply for the future.

In the garden, there was a small bed of seedling asparagus that had a two years' growth, a little patch of strawberries containing several varieties which had been allowed to intermingle with each other, and a few currant bushes, that had sprung from cuttings, with a very small lot of Myatt's Victoria Rhubarb, and also some very young plants of Cahoon's seedling, probably enough to afford during the season enough of this vegetable for a family of half a dozen people. This was all.

The soil of the garden lot is naturally very light, part of it being a very hungry sand, and that cropped until nearly all its strength had been exhausted. At the beginning of the term, 14th of April, there was no manure hauled on to the garden—there were no seeds on hand to get ready early crops, or at least there were so few that, for such crops as were needed for consumption, they were of little avail, and of course, every preparation had to be made to push the work ahead, to try and get in crops in such condition as would give their use at as early a day as possible for consumption.

A large plot was at once prepared and trenched, worked with a dressing of manure for two hundred large well grown currants which were furnished by Messrs. Hubbard and Davis, of Detroit, and which were set in rows six feet apart. These currants were of the Fertile de Pallua and White Grape varieties, and have made a very thrifty growth during the present season, promising a reasonable crop next year. Besides these, about one hundred more currants have been set out along the main avenue, alternately with a number of the best of the seedling peach trees, which it was thought fit to try for varieties, as no other use could be made of them, being too old to use for budding purposes. A large bed was also prepared in the same manner and set out with strawberries, the sets being furnished from the plot already mentioned. A very valuable asparagus bed was likewise prepared and set out, and now gives promise of yielding a very fine crop if well taken care of in the future. Crops of peas, beans and potatoes were all sown and planted previous to the first of May.—Besides the work of merely planting out crops, preparations were made, and the work carried on of extending the garden beds over double

the amount of ground which they had before occupied, of extending the wide central road through the garden, and of cutting out and forming beds and walks between them from land that had never been put to any such use before. Much of it was also occupied by stumps that required grubbing out, and in some places holes and hollows had to be filled up, that the beds for the vegetables might be made level and uniform in appearance. All work of this kind upon the garden is a permanent improvement of which the full benefit can only be felt in succeeding seasons. For instance, the asparagus bed, if in any private garden or in a market garden, would be valued at not less than worth at the present moment \$100 to \$150; as yet it has not had time to repay the institution a cent, so with the whole of the other beds enumerated, and to these now may be added an equally large plot of pie plant, all the plants that had been growing for the past season having been taken up and divided, and set out with the design of having enough for use another year, without purchase.

The other work of the garden has consisted in taking care of the usual crops grown, but all of which suffered severely from the prevalence of late frosts. When the frost of the 3d of June last occurred, the whole of the crop of early beans, with all the plants of the cucurbitaceae tribe which had been set out, and were promising both early and large crops, were completely destroyed, and the frost of the tenth of the same month was so severe that it destroyed all hopes of the crops of early potatoes, which the previous frost had spared, and even froze the young peas in the pod and prevented them from filling to the extent which they would have done had this disaster not checked their growth. Of the value of the crops raised afterwards, and their use in the boarding hall, the accounts which will be published in another number will exhibit in some degree that one portion of this institution has made a fair return for this season even with all the set backs incident to it, and which have been more severely felt in this vicinity than in any other in the State.

Even after the late frosts, which at the same time cut us off from the results which were attempted to be gained by the sowing of many and various kinds of seeds for trial and comparison, the early frost of August came and destroyed luxuriant crops of tomatoes, melons and summer and winter squashes, which by their rank and rich growth a week previous had made the garden a delight to the eye wherever it rested.

Whilst the work of growing the crops was being carried forward, the work of reducing the land to garden form, was likewise pushed on with vigor, and of course involved the expenditure of a large amount of labor from which no return could reasonably be expected beyond what might accrue from the difference in value between a piece of wild land, and a lot well worked and laid out into a valuable garden. This work is not to be done again, and will of course save an outlay for the future. The amount of its value could not well be placed at less than one hundred dollars, as instead of two acres of garden, as there was in the spring, there are now more than six ready and prepared for future operations.

(To be continued.)

### Some Notes on Fattening.

One of the most difficult subjects for the farmer to be master of in his business, is that which involves the fattening of his stock. So little is known of the action of food on the animal system, and it is so difficult to obtain data from which general principles can be evolved, that even with all the aid that the progress of Physiology and Chemistry have made within the last twenty years, and especially with reference to agriculture, very little practical advantage has been derived from them in rendering stock more readily and more certainly profitable. Most farmers will tell an inquirer that there is no profit in feeding stock, or at least little remains after the expense of the crop on which they are fed is paid for, and the cost of feeding it out is added. In fact it is often argued that all the profit arises from the remains of the crop which the stock kept are not able to consume, or in other words the manure made, and its

value for the production of saleable articles. This assertion may or may not be correct, but as yet very few are able to say to the contrary. On the large tracts of land, where cattle are raised like wild animals, and allowed to come to their growth with little or no reference to their age, or size or profit, and where afterwards they are fed on great amounts of grain, because it is more profitable to send the crop to a distant market in the shape of beef or pork, than to transport it in any other way, cattle and hogs are known to be profitable; but on a farm of the mixed husbandry order, where each department of the farm is calculated to perform its own functions with reference to all the other departments, and without being a burthen to any of them, it is a difficult matter, and one which it is worth while to look at with the aid of all the science and knowledge there is known as applicable to the subject.

It is known to every feeder and worker among stock that every grown animal requires a certain amount of food, to keep it up to what is known as its ordinary condition, and that if it gets neither more nor less, its weight remains stationary. If it is put at hard or severe work, the food requires to be increased beyond what it needs if not at work, because if it receives no more it will be found that the force exerted to do the work, rapidly consumes a portion of the animal weight, which is not made up by the same amount of food that kept the animal stationary when at work. Again, if it is desirable to make an animal weigh more from a given time its food has to be increased, but in what proportion, and under what condition, are points which are as yet only demonstrable by the experience of the feeder and the knowledge which he possesses of each animal that may come under his charge. It is not yet possible to say that for every pound of flesh, or of weight that is to be gained by an ox or sheep, so much of certain qualities of feed must be given.

Recent experiments have demonstrated, however, that whilst a certain weight of food is consumed by an animal, the whole of it can be accounted for, and that when the weight of the excretions, of the carbon contained in the carbonic acid expired by the lungs, and of the substances carried off by the perspiration are added together, they are found to be almost exactly equal to the food. When the process of digestion is carried on in a healthy animal, it gets rid of the food by two methods, either the stomach uses the food to supply the wants of the animal, or it passes off the portions which cannot be used. Hence when an animal has the faculty of digesting a large amount of food, and assimilating from it more material than is needed to supply the waste caused by its vitality, it is in reality laying up a store of the food which is given it, and this is called the fattening process. Some animals possess this quality of storing up food in their bodies with greater facilities than others, and such animals are not only valued highly, but their quality in this respect is endeavored to be perpetuated by breeders. When the animal is fed on food which it eats, but from which it cannot extract the food it needs, it passes off as excrement all such matter, and though it may feed well, it decreases in weight, and becomes poor.—This is the case very frequently, with many animals which we have often met in the barnyards of this State. Their owners would tell us that they had "during the winter all they could eat, but they had not grown a pound heavier than they had been in the fall previous." They had filled their bellies, and they had made a fine yard of manure, but beyond these two actions, they had gone no further; they had not added to their own weight or size, and consequently they had added nothing to the farm. In this connection, also it may be well to add, that it was very questionable even whether the manure thus made was of more value to the farm than chopped or ground straw. This is especially the case with straw and marsh hay. The animal gets its stomach distended and full, but the whole system is impoverished by the exercise of the powers necessary to pass off the great proportion of indigestible material which has been searched in the most thorough

manner by the action of the stomach for material to supply the place of that which the body must use up if the animal would live. Hence the richer the food of the animals, the richer the manure.

Again, it has been ascertained by actual trial, that a certain weight and quality of food raises the weight of the animal to a particular point where it remains stationary, that if the weight would be increased beyond that point, a regular additional supply must be given. Nor does the watchful care of the feeder stop here; for it must then be decided after reaching a particular point, whether it will pay to keep the animal any longer, for if a greater weight is needed, a still further supply of food must be given, and that food likewise adequate to create solid flesh or fat. If, when a particular high weight is reached, the animal is reduced in its rations to the amount of food which was given it when it was stationary at the lower weight, it rapidly loses all it has gained, and falls very quickly again to the point from whence it started, thus proving that a given amount of food is requisite to sustain a given weight in any animal, and that it is from the quantity and quality of the food that weight of flesh or increase of fat is formed.

Again, a given amount of food does not produce a constant effect in different conditions of the animal. For instance suppose that an ox is fed at the rate of a peck of corn meal per day until it has gained an additional weight of 100 pounds, at which it remains steady; an additional peck of meal will not make it gain another 100 pounds, but only a stationary weight of about 80 pounds more, and so on, a third addition making a still smaller gain. A distinguished Scotch writer on this subject, explains this effect of different quantities of food thus: "A lean animal is able thoroughly to exhaust the food given it, and to absorb a considerable proportion of nutritive matters contained in it; but when it becomes very fat, or its supply of food is very large in amount; its digestive organs are unable to assimilate all the nutriment supplied to them, and take up only that part which is in the most readily digestible state. As an inference from this fact, it must be observed that when an animal becomes nearly fully fattened, the last increase of weight is obtained by the expenditure of a large amount of food, and by an absolute waste of nutritive matters; and practically it becomes of the greatest moment to determine the point beyond which it is no longer economical to feed an animal. It may also be inferred that a large lean beast may require a smaller quantity of food to keep it a constant weight than a small fat one."

It will be seen, therefore, that one of the problems that a feeder of cattle has to solve, is how, and what amounts of food, he must feed his stock, and to what points of weight each must attain, without causing him a loss, for it will be noted by what has been said above, that whilst at one period an animal may gain enough increased weight to prove profitable, as they increase in weight, a like addition of food does not cause a like increase of weight; or in other words, whilst in one condition of the animal, a bushel of corn may bring 60 cents, in another condition it may not bring the feeder over 45, and where the animal is still further advanced, it may not even bring 25 cents per bushel.

**Spaying Cows.**—We learn that a gentleman at Newburyport, had two cows spayed last spring. They have done so well, and given him such satisfaction that he has recently had the operation performed on another. They are all fine milkers. One of the cows spayed last spring, a fine young Durham, gives as much milk now, in October, as she did last May, a few weeks after calving. The other, an old cow, is now in rather low flesh and has fallen off somewhat in her milk. Their milk has varied in quantity, according to the keeping they have had. But they have neither of them fallen off as much as cows in the ordinary condition. This gentleman keeps four cows, and he intends to have a fourth spayed soon, so that he may have his whole set in this condition. We shall watch the result of this experiment with much interest.—*New England Farmer.*



### The Use and Abuse of Manures.

Manures are frequently misapplied in farming as in gardening, and such things occurring through a whole kingdom may be regarded as a national loss.

And it is not only a loss as to the manure itself, but a loss in the produce; instance such things as an over-manured plot of potatoes smothering each other, and, in the end, producing a very inferior article to those on moderate soils; or pear trees highly manured and producing little but spray. There are three distinct classes in vegetables as to their demands in regard to manures: First, what may be termed gluttonous habits; secondly, those which on fair soil are better without manure; and thirdly, things of a medium habit in this respect.

In the first class we may place our cauliflowers, celery, asparagus, lettuces, spinach, endive, cabbage, and the Broccoli family generally. As those which are better without manure, I may name radishes, beets, and even carrots, if the soil is in good heart, and parsnips. Most of the other kitchen-garden things may be called of the medium class.

As for asparagus, abundance of manure is indispensable, both under the plants, above them, and also at the sides of the beds. Celery is next to asparagus in this respect; but it is my firm opinion, that such as are intended for late or spring use are far better with a moderate quantity. I feel assured that heavy manurings force such a powerful root action, even as early as February, that plants of any strength make an effort to grow; and as we all know, the first effort in this way is to run to blossom. The Broccoli family are known to require liberal manurings; but in consequence of the "club," the best of manurings may be defeated. Still I believe that spring Broccoli may be over-manured; extreme grossness but makes them more susceptible of a severe winter. Cabbages revel in manure. Lettuces may be grown tolerably fine on sound soil without manure; but to have a lettuce crisp, succulent, and of noble bulk, give it plenty of manure. The same may be said of endive.

Amongst the moderate class let us examine potatoes. I have a few lines in the kitchen garden here (Oulton), of what is called the French Kidney—a singular tuber as compared with ordinary potatoes, being like a fir cone; surely it must be a species. These I grew nearly thirty years since, and proved that they were totally unfit for our kitchen gardens; and why? Simply because there is so much humus in the ground, without any manure, that the plants run wild; and as for produce, never was such a host of rubbish seen, and the plants extended five feet on either side. Now, these potatoes, which I have known excellent on ordinary unmanured soils, are splendid roasters, and, indeed, are, if boiled, a mass of flour. But we may meet with cases of the same kind in our fields.

Observe wheat on highly manured soils, or even as following root-crops on soils highly enriched. How frequently do we see it prostrate and seriously injured. But let us turn to fruits. There are some kinds which are rendered unproductive in the extreme by manures in the soil; such is the pear, for instance. Then others will do with a medium quantity; this includes the majority. Some few will bear heavy manurings; of such are the gooseberry, raspberry, white currant, and a few kinds of apples. As for the pear, in general, manure in the soil is out of all question. There are, perhaps, a few kinds, if on the quince stock, which would enjoy a little manure, such as Louise Bonne de Jersey and Winter Nellis, pears either naturally great bearers, or of delicate habit. But with several kinds a generous loam is even too good, especially if too deep. Apples are so various in habit that it is difficult to class them as to rich soils. There are some kinds which bear on the young wood, such as the Manks Codlin, the Ribston Pippin, &c., and I have always found that such will bear a liberal amount of manure. But the chief of them, on espaliers, or, indeed, in any dwarf form, are quite content with a sound loamy soil. Trees in a trained state, and while young, will be completely spoiled with manure in the soil, unless it is some barren material. Here, again, a plain loamy soil is amply sufficient. Of course, in all these fruits there are exceptions. Cherries are partial to light and free soils, and, therefore, enjoy a moderate amount of manure, especially such as the May Duke class, and the Morello. Apricots enjoy a moderate amount of manure in addition to a generous soil.

But, after all, how much better a command have we over fruit trees by surface dressing. Here we can do as we like; but put plenty of manure in the soil that fruit trees are planted in, and they will do as they

like. This latter position is not always consistent with profit. Besides, young trees in general do not need much manure, they have little work to do; give them, in general, a free loamy soil, and they will manage the rest themselves. It is rather the older and hard-cropped trees that need extra assistance, and here it can scarcely be misplaced. It is not only a question of manuring, but, in addition, a medium for the encouraging of surface fibres. It needs little argument at this period to prove the immense advantage of this as a regular system.

These are times in which the manure question has become one of the most important in the kingdom. What between the guano importation, which concerns thousands, and the great sewage affair, we may play see the importance of using manures with discretion. In these parts, the centre of Cheshire cheese making, scarcely a farmer of any importance but buys guano or some newfangled artificial manure; and this, on farms where from twenty to eighty milking cows are constantly kept, besides young stock, horses, &c. They, moreover, buy immense quantities of bonemanure; it being found the best renovator of dairy pasture. So that we may see that this manure question is a serious affair.

The management of manures in the dung-yard is a question still deserving serious attention, for it is still capable of much improvement. I much fear that we may fairly say that, what between evaporation and water-waste, the country loses on the average nearly twenty per cent.

R. EMMINGTON.

### "Fall Fodder"—Peabody's Prolific.

Mr. Editor:—I suppose quite a number of your subscribers planted the famed variety of corn which stands at the head of this article. I have been waiting, and watching each number of the FARMER to see if some one or more would not give the result of their operations in the matter—only one man has mentioned it, and he thinks it should be called "profligate corn."

The writer of this procured one small ear of the above mentioned corn, and planted it according to directions: two kernels in a hill; but, like some people, it cannot bear prosperity—I gave it a rich soil, and it would not mature. If there could have been a way devised to winter it, and give the wayward stuff another summer, there might have appeared some sound corn. The "profligate" grew twelve feet in height, the stalks measuring six inches in circumference, being eight or nine feet to the top of the upper ear. Wishing to sow the ground, it was cut up, with the remainder of the field, about the 12th of Sept. At that time full one third of it had not shown the silk. Four of the most promising stalks were left standing, to ascertain if it would mature; the ears from these were gathered October 20th, at which time it was just fit for roasting.

Mr. John Clark, of Clinton, planted a quart of the "profligate" on the river bottom; some of which reached the height of fifteen feet—but I have heard of another individual who grew it to the astonishing height of seventeen feet! The advertisement said this corn was raised on Long Island; it is very strange to me how a corn of such gigantic dimensions could mature in the latitude of that island. I can conceive of but one way in which this corn can be of any use—and that, as fuel on the prairies; from five to seven sticks of stove fuel might be obtained from each stalk. It is useless as a grain crop, and nearly so as a forage plant; mine was fed to stock and the butts are laying on the ground from four to six feet in length, resembling sled stakes, although they were fed green; had they been dry, probably ten feet would have been left.

Clinton, Nov. 11, 1859.

### Take care of the Implements.

Examining a Mowing machine a few days since, I observed, painted upon a conspicuous part of it, the words, "Keep your knives sharp." The manufacturer had, I presume, learned to know that very many of the failures on the part of farmers to make their mowing machines work satisfactorily, proceeded from a want of attention to the injunction contained in the four words so conspicuously painted upon the machine. It seems strange that any such admonition should be necessary, but "facts are stubborn things," and it cannot be denied that too little attention is given to our implements, when in use, or when not in use. No nation expends so much money for implements as the American, and none are so careless of them. In fact, the purchase of improved implements is one of the heaviest taxes imposed upon us; but it is equally clear that we double our taxation in this particular by our abuse of them. The

leisure season of the farmer is at hand, and this is the proper time, therefore, to direct their attention to this matter. Where shall they begin? With the first tool or implement they meet after reading this. If they have done with plowing and harrowing for the season, let every plow, harrow, and cultivator be taken to the implement house, presuming, of course, that every well-conducted farm is provided with one of these indispensables. Every shovel, hoe, spade, or rake should be similarly cared for, and the first leisure hour, or rainy day, appropriated to putting them in proper order for use at any moment. By this I mean, that every part of every tool should be carefully examined; every nut and bolt should be seen to; the adhering dirt should be washed from both iron and wood work; and this should be done before the bright or polished parts, as mold-boards, &c., begin to rust. Apply a little tallow or oil to these parts; procure some good oil paint, (the best is the cheapest), and give a coat of it to every part of the wood-work. One coat of paint is worth half a dozen of varnish, at least such varnish as is usually applied to agricultural implements. Examine the mowing-machine knives, file or grind out the nicks, put a good edge on them, and after oiling them to prevent rust, lay them carefully aside. Remove all the gummed oil from the gearing and journals of your mowers, thrashers, corn-shellers, &c.; have the blunted harrow-teeth taken to the smith and pointed, and do not forget to have the plowshare laid anew, and the coulter or cutter of the plow sharpened. In a word, have every thing in such order that it will be ready when wanted. This, properly attended to, will save to one half of our farmers one half of the annual outlay for implements. Try it for one season, and my word for it the system will be adopted by every one who has any disposition or desire to economise his expenditures.—*Cor. Farmer and Gardener.*

### Points of Cows.

A. L. Fish, a well-known dairyman of Herkimer county, N. Y., gives in the Little Falls Record, some good remarks on the points of cows. He very properly considers strength of constitution and capacity to eat what is offered her, at all seasons of the year, as of the first importance. He rightly observes, also, that the indications of such a constitution are a thick mellow skin, with soft hair, a bright, full eye, broad loin and hips, deep body, and straight back.

"These dairy-men [and city milk-men] usually select cows that yield the largest amount of milk, because they depend more upon the quantity of cheese than its quality, and milk is known to make a good yield of cheese that would make but little butter, and poor at that. But I am not in favor of the rule of selecting cows that yield the most milk per day or season, in arriving at a proper standard of excellence for the best. \* \* \* The quality of milk a cow will give, is indicated by hair and skin, and yellow color of the skin inside of the ears and other parts not thickly covered with hair. I have never known a cow, with soft, fur-like hair and mellow skin, appearing yellow and gummy at the roots of the hair when parted with the hands, that was not a good butter cow, and when fattened, would mix tallow well with flesh. Having been accustomed to fatten my cows that failed for dairy purposes, by age or otherwise, for many years, and being on the lookout for causes of known results, I have observed that those known to give good milk, made most thrift in tallow when fed to fatten. Hence, the conclusion, that cows that handle well in what the butchers call tallow joints, may be judged by a plainly marked design of nature in her physical structure. Instead of heavy head, horns, neck and shoulders, and comparatively light hind quarters, which is characteristic of the opposite sex, she should show an opposite design, by a feminine countenance, light head, neck and shoulders, widening backward from her chest to the loin and hind-quarters, where the most strength is required."

**Importation of Foreign Bees.**—The Agricultural Bureau of the U. S. Patent Office have received intelligence of the shipment from Havre, France, of a large swarm of Lombardy bees. They are of larger size than the ordinary bee, and, having a longer bill, are able to suck flowers inaccessible to the American bees. The product of an old hive of these bees is said to be sometimes 150 lbs. of honey in one season. These bees will not be distributed until 1861, by which time it is expected to rear from the swarm now in transit, stock enough for six hundred hives.

### English and American Farming.

In the November number of the Pennsylvania Farmer and Gardener, E. Pugh, who has recently returned from a visit to England, thus gives his ideas of the contrast he has noted between English and American Farming. He is evidently one who has given his attention to the subject, and is capable of drawing comparisons on such a subject, of some value. He says:

"Yet no American who has an interest in the subject of agriculture, can have had any considerable opportunity for observation in the Old World, without feeling that, in a great many respects, the American farmer has yet much to learn, before all departments of his art are brought to that degree of perfection to which they have attained in many parts of Europe, much less to that degree to which it is desirable to see this art brought, and to which a general consideration of all the facts and principles that bear upon agriculture leads us to believe they may be brought."

In no country in the world has agriculture been brought to that high degree of perfection to which we find it developed in England. In none has more attention been devoted to the subject, and in none do we see so much wealth, power, and intelligence, concentrated upon so limited an area, as we find in Great Britain. It is true that the English agricultural laborer is in a most low and degraded moral and intellectual position, and that, in many instances, his immediate employers, the farmers, are not possessed of the intelligence which is so essential to the development of a high state of agricultural production. Yet the land-owners are, as a rule, men of a high degree of intelligence, with enlarged and liberal views upon the subject of agricultural improvement, and this has led to a more general adoption of all the various auxiliaries to agricultural production, and to a higher investment of capital in the improvement of land, than in any other country. There has been a more general union of the interests of the agriculturists in agricultural associations, and this, with the greater concentration of capital upon the same area, has exhibited indications of greater strength in disposable resources, as manifested in the cattle shows and agricultural fairs of that country, than in any other part of the world. And the contrast between the highly cultivated soils between Liverpool and London, and the unthrifty husbandry that we see in crossing New Jersey between New York and Philadelphia, is no less painfully striking to an American traveller, than is the contrast between an English and an American cattle show. And even our old Chester County here, which some of us like to call the Eden of the State, exhibits in many places a state of agricultural production, upon which an English agriculturist would stare, if tolerated in his own country.

Now this state of things should not exist. Although it may be many years before Chester and Lancaster and Bucks Counties, can exhibit such prodigious agricultural returns as Norfolk, and Berkshire, and Cheshire, yet there is no reason why the entire agriculture of the Atlantic States, should not approximate more nearly than it does now, to that high state of development which we have just referred to in English agriculture. And the attention of the farmers of our country, as a body, cannot be too earnestly called to an inspection of the cause of the great difference which now exists between the state of our agriculture and that of Great Britain.

A full consideration of all these causes, would involve the discussion of many questions in political economy which I shall not notice here, but shall refer only to a few of a great many special causes that are most prominent. These are:

1st. The want of a rational system of rotation of crops. We have wheat, corn, oats, timothy grass, and more recently, sugar cane,—all cereal or grass like plants, which make a constant drain of nearly the same materials from the soil, and thus afford no rotation. Against these, it is true, we have clover, but this is not sufficient; we should have beans, peas, trefoil, turnips, mangel wurtzel, &c., which figure so largely in English agriculture.

2d. The want of good artificial manure, made at a minimum cost, (which is only possible when very large capital is invested in their manufacture), and sold by responsible manufacturers, in whom the farmers can have full confidence.

There should be a sufficient capital invested in this business, to enable the manufacturer in the hands of agents all over the country, that farmers may get them without difficulty at the time they require them. They should be sold, as in England, according to a value fixed by the analysis of a responsible and

competent chemist, who should be appointed by the State or the State Society, and whose special business should be to look after the farmers' interest, and to save them from the shameful impositions of quack manure manufacturers, which at the present time have well nigh produced an entire loss of confidence in artificial manures on the part of the farmer. It may be safely asserted that the farmers of Pennsylvania are annually being cheated in quack manures, to an amount equal to more than ten times what it would cost to employ the best chemist in the world to save them from such fraud.

Prof. Voelcker, chemist to the Royal Agricultural Society of England, and also professor of chemistry in the Royal Agricultural College at Cirencester, recently informed me that he had just examined a number of American artificial manures, nearly all of which were very bad, and several of them almost worthless. An American fish guano which I analyzed myself, at Rothamsted, England, was found to be entirely worthless, or rather it was about as valuable as a good garden soil, which I analyzed at the same time.

And Mr. Lawes, of Rothamsted, England, who manufactures about thirty thousand tons of superphosphate of lime annually, assured me that, so far as he had seen the American super-phosphates, he believed it possible to send them from England to America, and sell them at a cheaper rate than they were sold here; estimating, of course, the real value of both, according to the data afforded by analysis. It must borne in mind, that it is not here stated that we have no good artificial manures, or that none are produced at the minimum price referred to, but it is most emphatically asserted that the farmer has not sufficient means of distinguishing between the good and the bad, and that he is constantly being most shamefully cheated by quacks, and that the result of this is a great loss of confidence in artificial manures.

3d. The want of a more general intelligence with regard to the whole subject of manure, rotation of crops, political economy, &c., such as can only result from a system of education specially adapted to the wants of the farmer, and which can only be attained by a thorough training in institutions specially intended for this purpose. Such institutions are not so essential in England, since the land there belongs to large landholders, whose great wealth enables them to take advantage of means of education beyond the reach of our American farmers.

4th. The difficulties of getting laborers of good, industrious, and temperate habits, who are in every way trustworthy. In America a man who owns one hundred and fifty to two hundred acres of land, may hire a few laborers, and by working with them and constantly looking after them himself, may be able to get sufficient work from them to insure a reasonable income from his capital involved, but if he don't work with them, he will rarely be able to do so. A consequence of this is, that large capitalists will not invest their money in land.

### The Dust in the Air.

M. Pouchet finds that the dust floating in the air contains the detritus of the mineral constituents of the globe, atoms of animals and plants, and the finest debris of all the materials we make use of. But one item he especially points out, viz: Wheat starch, which is invariably found in dust, whether old or recent. Surprised at the quantity of it present among the aerial corpuscles, M. Pouchet investigated the dust of all ages and of every locality; and everywhere he found this wheat starch present. "I have found the starch," he says, "in the most inaccessible corners of old Gothic churches, mixed with dust blackened by six or eight centuries of existence; I have found it in the palaces and cans of the Thebaid, where it may have dated from the time of the Pharaohs; I have found it in the tympanic cavity of the ear of a mummified dog, which I had found in a subterranean temple of Upper Egypt. In all countries, in a word, where wheat forms the staple of food, starch always penetrates into the dust, and is met with in greater or less quantities."

**Mules.**—Messrs. W. B. Rogers and W. R. Colcord, of Bourbon county, sold, the other day, to Messrs. Todhunter & Co., of Fayette, 43 mules, mostly broken, at the high price of \$212.80. This is the highest price we have ever known for so large a lot of mules. These are intended for the Louisiana market. Col. C. R. Estill, of Madison county, sold, a few days ago, a lot of sixty yearly mules, at the price of \$115 per head.—W. S. Helm, Esq., of Shelby county, lately sold to James Horton, of Bourbon, one hundred and ten mules, at \$160 per head—amounting to \$17,000.—*Ohio Farmer.*



## The Garden & Orchard.

### The Underdraining of Orchards.

Nearly every orchardist who has tried draining, affirms that underdraining is of the greatest service in rendering an orchard more certain in its yield, and more to be depended on as a source of revenue. And yet but few orchards are drained with any regard to system, and we doubt if there is one, outside of a regular nursery establishment, thoroughly drained in the State, much as the interest is that lies in the production of fruit. Yet draining ensures a moist subsoil without which in a dry time, no fruit can come to its full maturity. If the soil is naturally wet, draining makes it sufficiently dry to promote the healthy growth of the trees, and to prevent the effect of late frosts proving injurious. Draining also raises the temperature of the soil, and this explains why it has the power of counteracting late frosts, as the high temperature of the soil will necessarily pervade the tree by means of the circulation of the sap. "If," says an experienced writer, Thos. Meehan, of Philadelphia, "the subsoil is dry, the fruit will fall in a drought, or if the fruit does not fall, the leaves will, when the fruit may as well—for as soon as the leaves fall, or in any way become extensively injured, the fruit will be worthless, if it even seems to ripen."

If we take a square shaped piece of land of any given size and design to make it an orchard, it can easily be ascertained how it can be drained, and what will be its expense. If the orchard is to contain four acres, with one side longer than the other, and as an orchard of the usual size and form in the State is generally laid out, it will be 20 rods in length one way, and 32 rods the other. If the trees are planted in rows two rods apart, commencing with a row one rod distant from the fence, there would be exactly ten rows of trees, and each row would contain 16 trees, or 160 in the whole lot, which seems to be a small orchard in extent, but in reality, if properly treated, it would be of more profit than many much larger. If desirable the trees may be placed only a rod and a half apart in the rows, which would allow on the same lot, 240 trees. Many probably would prefer to have the trees set in quincunx form, and for a large orchard, which would probably have to be worked part of the time, the straight rows running north and south are to be preferred, as permitting a more easy tillage.

The thorough drainage of such a planned orchard can be easily laid out, and carried on at any time after the trees are planted, but we believe that eventually it will pay better to have the drainage all perfected, and the whole lot subsoiled before a tree is set out. The land being of the shape mentioned, and 32 rods in length in one direction, and 20 in the other, no matter which way the rows of trees run, if the character of the field permits a fall for the drains on either side, it will be necessary to determine before setting out the trees in what direction the drains must be made. Where the rows of trees are two rods apart, and the rows run the long way of the lot, the drains may be at first laid down so as to include two rows of trees between each drain, and this would give for the lot five drains, each 32 rods in length and 66 feet apart, from each other, and make in all 160 rods of drain. The main drain that would run across the lot, and into which these orchard drains would empty would add but twenty rods more to the whole, and make in all but 170 rods. If, at any time after the drains are laid down thus far apart, it is found that the drainage is not effectual enough, but that the soil needs more lines of drains may be run up between each row, making the drains each but two rods apart, and in the centre between the rows of trees. Whether this will be needed, can be easily made known in the course of a year or two, by trying a part of a row with a drain on each side of the trees; for the rows of trees surrounded by the drains will be a perfectly reliable index in this respect as they will show by the superior thriftiness of growth, the greenness and fullness of the leaves, the ripeness of the wood, and if in bearing, the better quality of the fruit, its perfection in shape, its freedom from scabs, and the quantity produced by the trees, whether the drains are effectual at the distance which they have been placed.

It will be readily seen that to drain a small orchard, and thus put the ground in condition to grow the trees in the thriftiest state, need not cost a great deal, if the owners are near a tile factory, if not, let them use poles or brush, or straw, but be sure and drain. Even when the ground is stiff, and the subsoil hard, a man used to the business ought to manage to cut a ditch an average of three feet in depth and six inches wide at the bottom, at

the rate of five to eight rods per day, according to the soil he has to work in, and to cut the ditch and fill it in at the rate of 20 cents per rod is not calculating the work too severely. If laid down with tile the whole of the drainage ought not to cost over 45 cents per rod, the tile being brought to the drain at the rate of 25 cents per rod. The whole outlay therefore for the drainage of four acres of orchard in a permanent manner, would approximate pretty closely to \$20 per acre. But all those who have given the subject a fair trial, and have experienced the benefits of such an outlay, invariably bear testimony that such an outlay is one of the most judicious that can be made, and that the certainty of return counterbalances any risk that may be felt in making such an investment.

### Ornamental Tree Planting.

Among those who view the human family in a moral light, man is frequently characterized at the religious animal, as regarded by the worshippers at the shrine of Mammon, he becomes the hoarding animal; again, by the devotees of the gastronomic art, he is regarded as the cooking animal; while, by those who bow at the shrine of Ceres and Pomona, he is, very appropriately, regarded as the planting animal.

The propriety of this last cognomen will be acknowledged, when we consider the periodical mania which annually afflicts almost the entire race; under the influence of which they make their way to the forests, the fields or the nurseries, and return, loaded with a heterogeneous mass of materials, which they proceed to plant about their dwellings and public resorts; in a large majority of cases only to fall a prey to the ignorance or neglect of those who have, at so much expense of time and labor procured their removal.

That this mania is not without ample occasion, can hardly fail to be obvious to one who observes the many, and often pretentious dwellings that stand, stark and treeless, along our highways. With the large amount of tree planting annually done for the supply of this lack, it may be surprising that the improvement is so slight; but this surprise will, to some extent, disappear when we consider that, probably, less than one tenth of all the trees planted in the country, for ornamental purposes, survive the second year; while, of this tenth, very many, ultimately fall a prey to ignorance or carelessness, in their removal, or subsequent treatment.

Of the numerous causes which conspire to bring about so extensive a failure, perhaps no one is more patent than the prevailing passion for the planting of large trees, which, very naturally, grows out of an inordinate anxiety to realize, at the earliest possible moment, the results of our labors—an anxiety which is too often indulged, even by intelligent planters, in despite of the dictates of their own better judgment. Indeed, so general has this practice become, in connexion with ornamental tree planting, that wherever we go, in city, village or country, during the usual planting season, our eyes are greeted with loads of trees, wending their way to the public grounds, or already planted in the yard or road ways, which the merest inspection shows to have been grown in the shelter of thicket or forest; and, consequently, drawn up to an inordinate height, from the lack of light and air, while the roots, forced to travel to a great length in search of nourishment, have been almost entirely destroyed in the process of removal; leaving only a few inches of each attached to the stump, and totally destitute of the fibres, through which, alone, the tree is enabled to draw nourishment from the soil. Such trees, with their straight, smooth trunks entirely unfitted to an open exposure, too often constitute the "beau ideal" of the self constituted connoisseur in such matters, and are planted only to die at once, or to linger out a few months of sickly existence and then make way for another similar batch.

The writer would not have it inferred from the above remarks, that the successful planting of large trees is impossible; but, that the principles on which success depends are, too generally, disregarded.

Doubtless, the most sure and satisfactory way to secure a healthy and reliable plantation of large sized trees, is to secure those grown from the seed, in the nursery, and transplanted every second or third year; by which means a compact head is secured, together with such a compact mass of fibrous roots, as enables us to remove and replant them with comparatively little check, and at a relatively small cost, even when of large size. Failing of a supply from this source, the next, and we may as well add, the last resort, should be to the open fields, or the borders of the forest, where trees have grown exposed to the full influence of light, heat

and wind; but it should never be forgotten that for equal success, at least quadruple the breadth of roots will be necessary for trees taken from such situations, as compared with properly grown nursery trees of the same size.

When such trees are to be transplanted previous to the next summer, it can be done with greater safety and economy, by taking advantage of the winter frosts, to remove them with a ball of earth attached. To prepare them for this purpose, a trench should be dug around each tree, before the setting in of freezing weather, of a depth sufficient to cut all the principal roots. This trench should be dug at a distance from the tree commensurate with its size, and should be refilled with straw, leaves or any litter that can be easily removed when the surrounding earth is frozen. To facilitate the freeing of the ball of earth, the snow above it should be constantly removed, or carefully trodden down as often as a fresh fall occurs.

The spot where the tree is to be planted may, very appropriately be treated in a similar manner, by digging the hole, and partially filling it with rich surface earth, ready to be mixed up with water when the tree is brought to the spot for planting. Having prepared the hole in this manner, let it be filled and covered with litter, to preserve it from freezing till the time for transplanting.

In deciding to plant trees of a size to require this process, it should never be forgotten that true economy consists in doing it thoroughly. While a tree of three inches diameter may succeed, if removed by cutting the roots at a distance of two feet from the trunk, the probability of the ultimate health and longevity of the tree would, doubtless, be more than doubled, if the distance were increased by another foot.

If, however, the determination to plant such trees is made a year in advance, the probability of success may be much increased by digging the trench around the tree, as above described, in the spring previous to its contemplated removal, and leaving it open during the summer, by which means the remaining roots will be induced to push out an increased amount of fibres, within the ball of earth intended for removal, which will, therefore, be ready to take a vigorous hold upon the fresh earth, when the tree is placed in its new position. The trench should, of course, be filled up as before described, on the approach of winter, the only object of it being to prevent the freezing of the bottom of the trench, which would serve to embarrass the process of removal.

T. T. LYON.

Plymouth, November 26th, 1859.

### HORTICULTURAL NOTES.

#### Temperature and Water for House Plants.

The great majority of plants, kept in houses during winter, will do better until they begin to bloom, with a temperature ranging between 40 and 50 degrees of Fahrenheit, where they are kept in a parlor or room, as may be, where there is no green house nor conservatory. The plants, if intended to be preserved in a healthy state must have the benefit of a position in an east or south window. Without direct sun light plants will not do well. Nearly all plants like moisture in air as well as about their roots; and the only method of supplying this want is by washing or syringing their leaves frequently. When the leaves show a deep green, healthy, vigorous appearance, and there are none that show signs of decay or present a withered appearance, the plant may be considered as doing well.

#### Hybrid Perpetual Roses.

St. in the Country Gentleman, names the following twelve Remontant or Hybrid Perpetual Roses, as those that may be chosen, premising that preference may be given to the first six: *Auguste Me*, bright rose, very full and good form; *Baroness*, dark rose, large and vigorous; *Caroline de Saxe*, delicate rose, blue, large and fine; *General Jacqueminot*, bright crimson, not very full; *Jules Margottin*, purplish carmine, very vigorous; *Lord Raglan*, deep velvety crimson, purplish shade; *Enfant de Mont Carmel*, dark purplish red; *Marquis de Bocclo*, flesh color; *Pius IX*, violet crimson, shaded; *Souvenir de Leveson Gower*, bright ruby; *General Simpson*, deep crimson; *Wm. Griffith*, rose lilac, fine form and habit. There are a great many of the hybrid perpetuals that are equally as good as these, but there are none superior to those first named, which have all become general favorites with those who have tried them.

#### Storing Celery.

In accordance with your request, I have furnished an account of my method of putting away celery for winter use; it differs somewhat from the practice of celery growers in general. I have followed this method now fifteen years, with complete success. I select a piece of rolling ground, choosing a fine clear day for the work; I set the line so as to mark out a straight ridge, and after shaking off the soil from the roots, lay the plants down along the line, three or four in a breadth, commencing at the highest point of the row, and working towards the lower point. Over the first layer of plants a second layer is laid, covering the first to about one third of their length, until the entire drill is finished, which generally takes about 250 or 300 stalks. The line is then removed and

set about eight inches from the row of celery, and the ground marked off along the line with the spade. The same course is pursued on each side of the row of plants. The edge of this out is leveled or sloped off with a clean cut, a spade deep from each side, and thrown over the plants, and so continued until the drill is formed into a ridge of a triangular form, the surfaces of which are well smoothed off and consolidated with the back of the spade. When severe frosty weather sets in, I put on a heavy layer of stable litter, about six inches deep, and if the frost is very severe, a still deeper covering. The celery can be taken out safely during the most severe weather.

My crop usually occupies about four or six such drills or ridges as are described above. Care is taken to make the ridges uniform in length and without any inequalities, so as to provide against the lodgement of any surface water. The rolling nature of the ground selected, provides against the accumulation of water even during the most copious rains or thawing weather.—J. J. in *German Town Telegraph*.

#### The Chancellor Pear.

This fine pear is not so well known as its high qualities deserve it should be. We consider it one of the very best of pears, and we have heard the remark, that a noted pomologist gave it as his opinion, that if he were confined to one variety of pear, he would choose the Chancellor. It is evidently an accidental seedling from the White Doyenne or Butter pear, and we think the flavor is superior even to that far-famed variety. It was discovered in a hedgerow, near Germantown, Pa., but the original tree was cut down by mistake several years ago. Mr. Joseph Green, of Germantown, obtained scions from the original tree, which have fruited in his garden for many years. We have heard that scions have been taken from a tree in the neighborhood of where the original was growing, since the latter was cut down, so that spurious trees may thus have been disseminated.—*Phila. Farmer & Gardener*.

#### The Bradford Watermelon.

H. A. M., in the Philadelphia Farmer and Gardener, thus writes his experience with the Bradford watermelon:

"The seed, last year, was not planted until the 5th of June, and some of the melons were ripe on the 12th of August. This year they were planted earlier, but ripened some days later. The rind is a grayish-green color, closely traversed by fine dark green veins; flesh varying from light to deep red, extremely sweet and tender, sometimes separating from the rind like the Orange watermelon; seeds white and small; size varying from medium to quite large. One great recommendation of the Bradford to me, is, that there is no danger of mistaking as to its ripeness. When ever the tendril nearest the melon dries up, the fruit is ripe. This I consider a great advantage, as I have never before found a variety which could be certainly depended upon. All the signs of ripeness—dying of the tendril, hardness of rind, cracking when pressed, sound when tapped with the knuckles, &c., are fallible with most of them."

#### The Fruit Trade and its Importance.

The following paragraph taken from the Ann Arbor Argus, illustrates very forcibly the importance of the crop of fruit to this State, and also suggests the propriety of fostering this trade, as it must eventually prove a source of an immense revenue, as it grows into that position which it must occupy in the course of a few years:

"Some idea may be formed of the extent of the apple crop and trade of this county, when we state the fact that D. Henning shipped a single cargo last week of eighteen car loads, from the sale of which over \$4,000 were realized. We have at present no means of estimating the surplus produce of the county for the year, but we are safe in saying that it rivals and probably excels any county in the State."

#### The Science of Gardening.

##### THE LEAVES.

(Continued from page 379.)

Leaves throw off a very considerable quantity of water. Dr. Hales found that a cabbage emitted daily nearly half its weight of moisture, a sunflower, three feet high, perspired 1 lb. 14 ozs., and spearmint exhales 1 1/2 times its weight in the same period. But of all the plants the diurnal perspiration of which has been ascertained, the Cornelian cherry (*Cornus mascula*) transpires the most; the exhalation amounting to twice the weight of the plant in twenty-four hours. This aqueous expiration takes place chiefly during the day, is much promoted by heat, and checked by rain, or a reduction of temperature.

On the free performance of this function of plants their health is dependent in a very high degree; and we believe that half the epidemics to which they are subject arise from its derangement. That consequence of the clubbing of the roots of Brassica tribe called *fingers and toes* arises, we consider, entirely from it. In the drouth of summer, when the moisture supplied to a club-rooted cabbage by its root does not nearly equal the exhalation of its foliage, to supply this deficiency the plant endeavors, by forming a kind of spurious bulbous root, to adapt itself to the contingency; in the same manner that in dry situations, the fibrous roots of the *Phlox pratensis*, *Alopecurus geniculatus*, &c., acquire a tuberos form, because bulbous or tuberous-rooted plants, it is well known, will exist in a soil so deficient in moisture as to destroy all fibrous-rooted vegetables.

Evergreens transpire less moisture than de-

ciduous plants; which would lead to the expectation that they are more capable of living in dry situations, which, in general, is really the case.

The matter transpired by a healthy plant is nearly pure water, 5,000 grains of it never containing more than one grain of solid matter, and this is constituted of resinous and gummy matter, with carbonate and sulphate of lime. It appears to be nearly the same in all plants. The quantity, however, varies in every species, probably in every individual—and is greatly influenced by the quantity of water supplied to the roots. Under precisely similar circumstances Senneber obtained the following results:

	Gr.	Gr.
A Peach branch, imbibing 100 exhaled	35	
" " " "	210	90
" " " "	220	120
" " " "	710	295

We have found the branch of a pelargonium, that, whilst growing on the parent stem, exhaled only twenty grains in twenty-four hours, more than trebled that quantity, in the same time when cut from the stem, and placed with the divided end in water. This increased transpiration is attended by proportionate reduction of temperature; for a collection of pelargoniums, in the midst of which Fahrenheit's thermometer stood at 55°, fell to 48° within two hours after a plentiful watering to their roots only, though the water was of the same temperature as the greenhouse.

For the purpose of ascertaining the composition of the liquid transpired by plants, M. Senneber collected 13,030 grains of it from a vine during the months of May and June. When evaporated 2 grains of residuum were left, composed of nearly 1/2 grain of carbonate of lime (chalk), 1-12th grain of sulphate of lime (gypsum), 1/2 grain of matter apparently gum, and 1/2 grain apparently resinous. He analysed 60,768 grains of a similar liquid collected from the vine during the month of July and August. The residuum after evaporation weighed 2 1/2 grains, composed of 1/2 grain of carbonate of lime, 1/2 grain of sulphate of lime, 1/2 grain of gum, and 1/2 grain of resin. The liquid transpired by *Aster Nova Anglia* afforded precisely the same ingredients.—(*Encyc. Meth. Phys. Veget.*)

As the season of growth advances the transpiring power of leaves decreases. Under similar circumstances Senneber found the transpiration much greater in May than in September.

The transpiration of plants decreases with that of the temperature to which they are exposed, as well as with the period of their growth. This explains why the gardener finds that his plants do not require so much water in cold weather, nor during the time that elapses between the fall of their blossom and the ripening of their seed. During this period they do not transpire more than one half so much as during the period preceding and attending upon their blooming.

The transpiration takes place from the upper surfaces of the leaves; and, if these surfaces are coated with varnish, the leaves gradually decay and fall, and the growth of the plant ceases until fresh leaves are produced. Hence arises the benefit which plants derive in rooms, greenhouses and other confined enclosures, from keeping those surfaces cleansed with the sponge and syringe. Some plants are particularly sensitive to injury from any check to their transpiration, among which are the tea-scented roses; and it hence arises that they cannot now be cultivated in nursery gardens near London, where they once flourished when that metropolis was less extensive. The advantage derived by plants from having their leaves cleansed was exemplified by the following experiment:

Two orange trees, weighing respectively 18 ozs. and 20 ozs., were allowed to vegetate without their leaves being cleansed for a whole twelvemonth; and two others, weighing 19 ozs. and 20 1/2 ozs., each, had their leaves sponged with tepid water once a week; the two first increased in weight less than half an ounce each; whilst of the two latter, one had increased two, and the other nearly three ounces. In all other respects they had been treated similarly.

It must be remembered, however, in using the sponge and the syringe, that the under side of the leaves is an absorbing surface, benefited by being kept clean, and by the application of moisture. The kidney bean, sunflower, cabbage, and spinach, absorb moisture equally by their under and upper surfaces; the cockscomb, purple-leaved amaranth, heliotrope, lilac, and balm, absorb most freely by their upper surfaces; and the vine, pear, cherry, apricot, walnut, mulberry, and rose, absorb most by their under surfaces.—J. in *Cottage Gardener*.

(To be continued.)



## FOREIGN AGRICULTURE.

## Comparative Advantages of Carts and Wagons.

FROM THE LONDON FARMER'S MAGAZINE.

A wagon is a four wheeled vehicle employed in carrying articles of heavy weight and large bulk from one place to another, and is drawn by two or four horses, according as the weight of the carriage, the loads that are drawn, the distance, and the state of the roads may require. The four-horse carriage with broad wheels, and of very strong construction, is chiefly used for long journeys and loads of heavy articles, which require to be only once placed on the vehicle, and no shifting or re-loading is necessary. The body of the wagon is closely boarded, in order to contain coals and lime; and grains and flour for the market are loaded in sacks. This wagon is mainly used, by coal merchants and millers, and on extensive farms, the thrashed grains are carried to distant markets in the four-horse vehicles. Coals and lime are also fetched from distant places in heavy loads in the strong carriages, drawn by a team of horses.

For the lighter purposes of carrying the crops of grain and hay from the fields to the rick yard a pair-horse wagon is used, which is built with open sides and boarded bottom, and drawn by two horses in tandem, or abreast, as in the four-horse carriage. The lightness of the vehicle permits a quick movement in the operations; and the use is very convenient in hay and corn harvests, when the wagon is open-built, and not encumbered with unnecessary weight of materials. Grain is carried to market in sacks very conveniently in this wagon, which in other cases is closely boarded in the sides, and becomes useful for the same purposes as the four-horse wagon, and only in the reduced ratio of two or three horses to four or five. This is the wagon of the farmer, and carries abroad and brings home all transportable articles, which are arranged in loads as circumstances may direct.

A cart is placed on two wheels in the centre of the body of the vehicle, from which two shafts extend in front, and form a connection of draught by which two horses yoked in tandem pull forwards the carriage or vehicle. The load is balanced on the wheels and on the back of the horse, which walks between the shafts, and is rendered steady by the imposition of part of the weight. The box of the cart is locked to the shafts; and being made to unlock, the tail-board being movable, the carriage is raised aback, and the load is discharged. This vehicle carries home and abroad loads of every kind of articles, and, being provided with projecting frames of timber spars, the crops of hay and grain are carried upon it from the fields to the rick-yard. For the purpose of distant journeys the lock is removed, the shafts being firmly joined with the body of the cart, which prevents the joggling motion, from the lock being present, that arises from the loose connection of the shafts and the cart. This provision is convenient for long journeys. The one-horse cart is contrived as the two-horse vehicle, the dimensions being reduced in strength and extent in order to suit the power of one animal. The axles of the cart are mostly of iron, though wood is yet used in many cases of home use.

The four-horse wagon is a useful implement on farms that are beyond the medium extent, for the purpose of carrying lime and coals, and the thrashed grain to the market. Two wagons may be placed on large farms; and being not very heavily constructed, two horses are able to draw the loads of hay and grain during harvest. On uneven grounds in hilly countries, and from distant fields, four wheels are more secure in the traveling, and more safe from being upset with top loads, than any carriage with two wheels; and in these cases the advantage is very apparent. But the movements are slower; much time is spent in placing and discharging the loads, which must be inconveniently large, in order to compensate the more frequent repetition of less bulky quantities. The chief use of the four-horse wagon is not for home work, but in going abroad with heavy and bulky loads of one lading in a day, or not more than twice sent on a journey; and a convenience is found in descending steep declivities from locking the wheel, and easing the horses from the impelling weight pushing behind them. This exemption is not large in amount, as the occurrence of very steep roads is partial, and does not form a decision of preference in the implement.

The pair-horse wagon possesses a much wider range of utility than the carriage that is drawn by four horses, and the adaptation is much more convenient for the purposes of the farm. Being lightly made and neatly join-

ed together in the component parts, the implement is managed by two horses, and one man to drive the carriage, which is a more convenient arrangement than two persons attending one wagon, as with the four-horse vehicle. The hay and corn harvests are very conveniently carried by this wagon in such loads as the distance and the condition of the roads will admit; and the implement is built with open sides, of spars, with a projecting frame. For the purpose of carrying coals and lime, and similar substances, the sides are temporarily boarded; and all articles in sacks, as thrashed grain, are carried in the open wagon of spars and light frame. This is the true harvest carriage, being lightly and neatly made, and suited to the special purpose. The boarded vehicle drawn by two or four horses is not so convenient, though it is applied to both light and heavy purposes.

The long-shaped harvest cart of Northumberland and the south of Scotland is placed on two wheels, drawn by two horses yoked in tandem, with a boarded bottom and open sides of spars, with a projecting frame. The implement performs exactly the same purposes as the light two-horse wagon, and is fitted on the wheels of the box-carts of the farm. It would be difficult to draw, even from an extensive and varied experience of both carriages, a fair comparison between these implements. Both vehicles are drawn by two horses, and managed by one attendant, and in that respect are precisely equal; and equal loads of any articles are carried on both vehicles on steep grounds, and in crossing declivities with deep and wide furrows. Top-loads of bulky articles, as hay and grain crops, are more safely carried on four wheels, which are not so readily upset as the two-wheeled carriage. On the other hand, the long cart is more nimble in the motion, and quicker in being turned, than the wagon, which occupies more room in the rick-yard, when crowded, in harvest. The wagon may be boarded in the sides, to carry coals and lime. The cart is not contrived for that use; but being provided with two wheels, and these borrowed for use from the box-carts of the farm, the cost being less than the four wheels of the wagon, may determine the comparison in favor of the cart, but which may be balanced by the other advantages of the light wagon. Both implements form the highest use, and are equally preferred.

The two-horse cart is used for heavy and distant carriages, and for performing the detail work of the farm. Greater weights are drawn by two horses in these carts than in the four-horse wagons, and a very large superiority for small work, in which wagons are wholly useless. Being provided with sparry frames, the carts convey from the fields to the rick yard the hay and grain crops, though not very conveniently, from danger of upsetting the top-load that is placed over a light box beneath, except on comparatively level grounds, and not very distant carriages. In these situations, the pair-horse wagons and the long harvest-cart are both dispensed with; and the two-horse box cart, with iron axle and strongly-shod wheels, performs every work of the farm, with the distant journeys and carriages. But in most cases the long cart and pair-horse wagon are introduced for harvest performances.

The single-horse cart has been contrived for detail work, in which frequent and quick repetitions are required of the operations that are performed. For every kind of summer work, when the ground is dry and firm, in dunging turnip lands, laying lime and dung on wheat fallows, carrying earths and stones, and all detail work of the farm, the cart drawn by one horse is immeasurably superior to any other vehicle, as it carries loads of dung for an acre of turnip land very sufficient in twenty outings from the heap, and a cubic yard of earth and stones is drawn to moderate distances without oppression to the horse. The lightness of the carriage permits quick and easy traveling, to which the narrow wheels offer little resistance. The load is readily discharged in one heap, or distributed into several portions, by the freedom of construction in the tail-board and forelock, which rises the cart into a slanting position, to facilitate the discharge of the load. On all turnip farms, the use of this cart is indispensable; and even for distant journeys, in fetching coals and lime, and in carrying thrashed grain to the market, the single-horse cart is superior to any other vehicle in carrying greater weights of load, and with more ease to the horse. A single animal will draw a ton on moderately steep roads, and for any length of journey; thirty hundred-weight, and even two tons, are drawn by carriers' horses and at collieries and iron works. But one ton may be assumed as an average weight of load in farming operations. On level grounds of conveniently arranged farms of

two hundred and three hundred acres in extent, where the journeys are short and the roads not steep, the hay and corn harvests are very quickly and conveniently carried on the one-horse carts, provided with frames of timber spars, that project before and behind the cart, and over the top of the wheels. The small loads carried are most amply compensated by the quick journeys that are made in frequency, and from the ease and dispatch with which the loads are placed and discharged. In these situations, of which many are found, no other vehicles are required beyond the one-horse cart, as it performs every kind of work, preventing the necessity of providing implements that only execute one purpose. The long harvest-cart or pair-horse wagon, along with single-horse carts, will provide any farm with wheeled vehicles, but liable to objection of different implements being kept for separate purposes, when a provision is known and used by which one implement, with an occasional change, is capable of performing all the carriage-work of the farm. The cheapest and most convenient provision of carriages for any farm will be in box-carts, made in the strength and weight of materials to be used by two horses, for carrying coals and lime in distant journeys, as likewise for the detail work of the farm during winter and in all heavy weathers, and the rather small size, and the construction light as possible, allowing the use by one horse during the turnip season, and all detail work, when the ground is firm and the land dry. The wheels of these carts are fitted on the long carts of Northumberland, for the purposes of harvest; thus executing the performances with one expense of wheels. This is true economy; and rises superior to keeping four wheels for the pair-horse wagon solely for the purposes of the employment of the single vehicle. The sole advantage of the harvest wagon over the sparry cart, in the top loads not being so easily upset, is wholly sunk in the superiority now stated; and wagons are exposed to the objection of the hind wheels being distant from the horses, and carrying a weight removed beyond the power of the animal. The box-cart may be merged into a vehicle for two horses during winter, and for distant journeys, and for one horse in all summer work, by the construction being neat and strong, materials light and durable, and the size resembling more the single-horse cart than the lumbering carriages commonly seen attached to two horses. A medium size and construction must be adopted. These carts require horses of spirit and muscular strength—tall, active, and powerful. The dull, sluggish animals of the wagon are not fitted for purposes in which only one or two horses make the exertion.

The wagon is a vehicle of slow progression, arising from the length of the construction of the implement, and from the hind wheels being placed at a considerable distance from the moving-power that is attached to the front part of the carriage. Hence the general handling of the implement is awkward and inconvenient in the turnings, and in all lateral directions. The irremovable attachment of slowness is gradually, and by habit, communicated to the animal of draught and a pace is acquired in conformity with the joggling motion of the heavy length of the wagon. The drivers acquire the same habit, and gradually sink into the pace that the motive powers have adopted, as being the least troublesome, and the most convenient and suitable. From these causes it is seen that in the countries in which the use of wagons prevails, and the grain is thrashed by the slow process of a man wielding a flail, the farm laborers are slow and more awkward in every kind of work than where carts are used as farm vehicles, and where grain is thrashed by machinery. A quickness is compelled to attend on the evolutions of machinery, and the habit is transferred to all other performances. A latent barbarism of the mind continues the use of these slow powers of action long after the inferiority has been discovered and acknowledged; so slowly are prejudices removed.

The purposes of use have been mentioned for which the different carriages of the farm are respectively fitted, and the superiority has been stated in the points of utility where one vehicle is seen to exceed another in the general as well as in the single occupations. The four-horse wagon is adapted only for some special purposes; in carrying top-loads on the farm, and in transporting heavy articles in distant journeys. These occasions are comparatively few, and do not justify the heavy cost of the implement remaining idle during the greater part of the year, as no part of the wagon is applied to any other use. The pair-horse wagon is more adapted to farm purposes, as has been mentioned; but still objected to as an expensive dormant in one

purpose of use, as the implement is wanting in any other adaptation. And for any detail work wagons are wholly useless. The two-horse cart adapts for any purpose of farm; and has only one inferiority, in being not so steady as wagons under top-loads, and more liable to be upset. The cart drawn by one horse is by far the most useful for detail work of every kind, but, though used, may fail for harvest purposes, and require the conjunction with a harvest cart. This last implement being fitted on the wheels of the box-carts, supply the inconvenience and complete the arrangement.

The prime cost of the different implements must have a large consideration in determining the preference of one vehicle over another, along with the liability of getting into disrepair, and the comparative expense of making the condition effective. A four-horse wagon equals the cost of more than two carts drawn by two horses; and as the number of animals employed are equal in both arrangements, the superiority of the two carts for a variety of purposes requires no argument or demonstration. Nearly four one-horse carts can be purchased for the price of a wagon. And here, again, the greater value need not be argued of four vehicles acting separately in varied purposes. The same difference is found in carts and the pair-horse wagon, only somewhat reduced by the price of a lighter wagon. The harvest cart of Scotland will cost not above the one-half of the price of a pair-horse wagon; and when the cart is fitted on the axles of the box-carts, the cost will not exceed one-fourth of the latter vehicle. The differences are most important in the case of a just comparison of the implements; and being joined with the superior usefulness of carts for general and varied purposes, there is formed an incontestable reason of preference of the cart as a vehicle of the farm. The best and most extensive farming in Britain is performed, and all farming may be conducted, by carts, without any wagons; but no cultivation of land is done, or ever will be executed, with wagons without any carts. The latter observations may settle the comparison of the two kinds of carriage implements in the value of practical utility.

## Economy of Fodder.

The hay crop throughout the most parts of Canada, and a great portion of the Western States, has proved this year very much below an average. Every farmer should therefore be careful of his fodder, and economize its use. Much cattle food is annually wasted either from want of knowing how to mix and use it, or, as is too commonly the case, from sheer inattention and carelessness. How frequently is straw seen rotting in unsightly heaps, instead of being daily employed in comfortably bedding cattle, and either chopped or boiled with other substances for food. Our farmers this winter, must pay strict attention to the economical mixing and preparing their turnips, mangels, carrots, flax, &c., as substitutes in a great measure for hay, or their flocks and herds will cut a sorry figure indeed before the advent of spring.

It is fortunate that the straw of most of the cereals has been abundant, and in consequence of the favorable weather in harvest, it was secured generally in good condition. It will hereafter be wanted not only for bedding, but in a more than usual degree for provender. Farm horses may be fed with straw cut fine and immersed in boiling linseed meal, and water till all is absorbed, when it should be well mixed up. The straw thus becomes a good medium for conveying the linseed meal the most fattening of all substances, into the stomach of the animal, and the effect produced is of the greatest advantage. Straw may also be advantageously mixed with other ingredients, such as bran, turnips, carrots, &c., and either boiled or steamed. The compound will prove particularly adapted as food for cattle. The boiling of these productions of the farm with linseed meal, so as to make a kind of pudding or thick jelly, has for many years been advantageously used in Britain in the fattening of animals. It is found by experience that cattle relish and do better upon a cooked mixture of food, than the same quantities of the various materials given singly.

But in order thus to prepare and economize straw as food for stock, the farmer must be provided with an efficient chaff cutter; an implement of essential importance at the present day and under existing circumstances. These machines may now be readily obtained of most of our implement makers in all the older settled districts of the Province; and they are usually exhibited at most of the agricultural shows, of different forms, prices, &c. By means of this implement and the exercise of care and judgment in the selection

and economy of material, cattle feed may be improved and increased to an extraordinary degree. It thus becomes more nutritious and fattening, and answers many other purposes connected with the management of live stock, and the judicious management of a farm.

Another most important means of economizing fodder; one which every farmer can more or less adopt, consists in keeping animals clean, dry, and warm during the trying season of winter. A sufficient amount of good food and water, regularly given, although of indispensable importance, does not embrace the whole of the proper winter-management of stock. In this climate shelter and warmth are no less indispensable, if sound thrifty animals are desired. Hence the necessity of suitable buildings to meet these conditions. It is a clearly ascertained physiological fact, which modern chemistry has established, that a large portion of the food of animals exposed to cold and draughts, is consumed in generating and sustaining the heat of their bodies, instead of being converted into fat and muscle, as would be the case in a warmer and less exposed situation. A warm stable or byre it therefore a great economiser of fodder. Animals thus cared for will thrive better on less food than will others under less favorable circumstances with a more ample supply. This fact demands the best attention of the farmer at all times, especially when, as at present, the hay crop is so far below the average.

It is important, however, to observe, particularly in reference to sheep, that buildings intended for wintering stock, should not be made too close and warm; a mistake, it is true, we are not in danger of committing in this country. All our domesticated animals require a constant amount of pure air, and therefore proper attention should be paid in the construction of farm buildings to the vital question of ventilation. To combine the various conditions necessary in the healthy management of stock, requires constant care and a sound judgment. In this country sheep must be put into yards having sheds, during the cold and storms of winter. But great care is needed in seeing that they are not kept too close; they require exercise and change, with plenty of fresh air, otherwise they will decline in condition, and become the victims of some contagious disease. Of all the physical conditions in which this animal can be placed, those most unfavorable to its health and growth, are dampness and exposure to cold stormy wind. Proper attention to matters of this kind, which come more or less within the ability of every farmer to carry out, will, in seasons like the present, make a scanty supply of fodder do more service in promoting the growth and sustaining the health of the domesticated animals, than a more abundant supply without such attention.—*Canadian Agriculturist.*

## Action of Frost upon Soil.

The soluble part of soil is the inorganic food of the plant. Rain water cannot come in contact with the soil, or even with a gravel heap, without dissolving some of it.

Expose almost any stone, or handful of gravel, washed clean, to the action of a quart or so of water for several days, and upon evaporating the water, poured off carefully from the stones, it will be seen from the whitish residue left that a portion had been dissolved. Now let these same stones be exposed, covered or partly covered with water, in a saucer, to the action of the frost; setting them out of doors for two or three snapping cold nights, taking care that they thaw by day. Pour off the water, rising with fresh, and evaporate as above, and it will be seen that a very much larger quantity has come into solution.

The reason is, that all stones, being somewhat porous, by the action of the frost their outer portion is broken up, scaled and fissured, and a vastly greater surface is exposed to the action of the water, even though this fissuring is not visible to the eye.

Application.—When land is exposed to alternate freezing and thawing, the same effects must take place; and when it is thrown into ridges in the fall, these effects are produced more conveniently than in any other way.

Snow will lie unthawed between the ridges, ensuring a cold temperature, and the tops of the ridges will, unless the fall of snow is very heavy, be exposed to the sun, and will thaw by day. Thus a considerable portion of the soil during a great part of the winter, will be alternately frozen and thawed daily. This effect on many soils, especially those of a heavy clayey or gravelly nature, will be equal to a dressing of manure.—*Homestead.*

Short-horn Sale.—The Hon. Adam Ferguson, of Canada, lately made a public sale of six heifers and four bulls, of his choice Short-horn stock. The highest price for the heifers was for a two year old last May, which brought \$88. The highest price bull only brought \$62; he was a calf eight months old.



## Notices of the Press.

Our own MICHIGAN FARMER visits our table every week, and brings a feast of good things. The FARMER sustains a high character among its class of journals. We are happy to see that our State has had the good sense to appreciate the talent of its editor, R. F. Johnstone, Esq., and appoint him to the position of General Superintendent of the Agricultural College Farm at Lansing. We are sure he will fill the position with advantage to the State, the students and the farm, and with credit to himself. The FARMER is published weekly by him, at Detroit. \$2.00 per annum.—*St. Johns Democrat*.

The MICHIGAN FARMER fulfills the promises of its prospectus, which is more than can always be said of such promises.

The series of articles on "The Structure and Properties of Wool," by Dr. Goodby, are valuable and interesting, and any scientific publication in the country might well be proud of them.

The price current, the editor may, and we hope will, make a prominent specialty of the FARMER. The Farmer's newspaper ought to be a perfectly reliable source of information as to the markets of produce.

We hope the FARMER is a success, pecuniarily. It certainly deserves to be. Mr. Johnstone has shown himself courageous in changing the FARMER to a Weekly at such a pecuniary crisis.—*Gazette*.

MICHIGAN FARMER.—To the farmer and horticulturist of Michigan, this publication is unequalled. Devoted to the advancement of their interest it is always filled with good things, suited to their wants and necessities. Good farmers will have this paper. It is published in our own State and is furnished as cheap as any paper in the United States.—*Lapeer Republican*.

THE MICHIGAN FARMER finds its way to our table regularly every week. It is gratifying that the intelligent farmers of Michigan are so well represented through the columns of this weekly Journal, and they give it their generous support. No paper in the Union excels it, and for the latitude of Michigan, no one equals it.—*Genesee Democrat*.

We notice that our Agricultural Society have adopted the plan of awarding, in some cases, copies of the MICHIGAN FARMER as premiums.—This is a good move, and those who are so successful as to draw them will find them of much more value than the "Diplomas," and "Transactions" which used to be awarded. We consider the MICHIGAN FARMER, published at Detroit, and the *Ohio Farmer*, published at Cleveland, as two of the best and most useful agricultural papers in the country, and no intelligent practical farmer should be without one or both of them. You would find either of them a good investment. Price of each \$2.00 per annum, \$1.50 in clubs.—*Branch County Republican*.

MICHIGAN FARMER.—We cannot too highly recommend this farming journal to the notice of our agricultural readers. It should be in the hands of every farmer, and of every farmer's wife and children.—*Rep. Banner*.

THE MICHIGAN FARMER, is received, a splendid weekly journal, devoted to the affairs of the farm, the garden, and the household, published at Detroit by R. F. Johnstone. It is a neatly printed quarto sheet "chuck full" of the very best agricultural reading. We wonder that there is not a larger number taken here.—*Ingham Co. News*.

MICHIGAN FARMER.—We cannot over estimate the value of this excellent agricultural journal.—For reliable information relative to the subjects of which it treats, it cannot be excelled. Every farmer in the State should take it. It is a large weekly paper published in quarto form, and is cheap at \$2 a year. Three copies for \$5, five copies for \$8, and ten copies for \$15. Address R. F. Johnstone, 130 Jefferson Avenue, Detroit.—*Bay City Press*.

We are in receipt of the MICHIGAN FARMER, a weekly journal of affairs, relating to the farm, the garden and the household, published at 130, Jefferson Avenue, Detroit Mich., R. F. Johnstone, Editor. The FARMER is pronounced by competent judges to be one of the best agricultural papers extant, and we cheerfully annex it to our list of Exchanges. The low rates of their clubbing terms, afford an opportunity for every farmer to subscribe.—*Morenci Star*.

MICHIGAN FARMER.—This weekly journal is becoming more and more a credit to our State.—Each number is filled with important matter, with most judicious selections and able editorials. It certainly deserves to be sustained and supported by our agricultural people. It is an excellent reading and family paper also—contains the latest general news and scientific intelligence. Its horticultural calendar, for April, contains articles on the preparation of the garden, on kitchen garden plants, on apple seeds and their treatment, which are useful to every one who has a garden to cultivate. The price of the journal, is \$2 a year—three copies for \$5, or five copies for \$8, in advance.—We hope the efforts of Mr. Johnstone, the able and indefatigable editor, will be amply rewarded by a large list of home and foreign subscribers.—*Marshall Express*.

Many letters from private personal correspondents are even more encouraging than the above.—We have room but for one or two. An influential farmer in this State writes:

"I send you a few more names for the FARMER. Our town will make a show on your Books another year. Many eastern agricultural papers have been taken here, which are good enough as far as they go, but we find out that if we want to know anything about Michigan agriculture, we have got to look to the MICHIGAN FARMER for it. Your weekly is much liked. It comes fresh, prompt, and full of good things every time."

A Massachusetts subscriber says, "I take nearly all the agricultural papers published in the United States, and would rather be without any three or four of the others than the MICHIGAN FARMER."

One in Western Illinois writes: "Enclosed find my subscription for the FARMER. I have tried a good many papers, but none seem to come right home to us with the information we want as yours does. Let Eastern ones say what they will, and strain themselves to the utmost to buy up our subscriptions at a discount, they cannot satisfy us; we have not what we want here at the West, till we get the MICHIGAN FARMER."

## NEW ADVERTISEMENTS.

L. D. & H. C. Griggs, Detroit. Sewing Machines. J. M. Thorburn & Co., N. Y., Pear Seed, Pear Seed. Hunter & Brooks, Northville, Sale of Cattle, &c. D. C. Linsley, N. Y. City. Am. Stock Journal.

## MICHIGAN FARMER.

R. F. JOHNSTONE, EDITOR.

SATURDAY, DECEMBER 3, 1859.

## Don't forget.

That we are ready to receive clubs of three or over, at the rate of one dollar and fifty cents for each name, and any larger number at the same rate. Send in your names before the first of January.

Those who desire to act as agents to procure subscribers for the volume for 1860, will be furnished with terms and prospectus on application, personally or by letter.

## Worth Attention—Sustain Your Own Press.

While farmers are preparing for the winter there is one duty which it becomes them to attend to with fidelity, and that is not to forget to sustain their own county and State press. They should remember that it is not the press of New York or of Massachusetts or of Pennsylvania that gives character to Michigan, that attends to the interests of Michigan, that makes the State and its industrial resources known abroad, or that guards them from imposition and wrong. It is the boast of much of the eastern press that they can always depend upon the western States for a large support. In fact, what with show bills, and their agents, and splendid promises, Michigan is generally pretty well skinned out of many thousand dollars every year for which the State gets no return. For it must be borne in mind that there is no reciprocity in this business. The eastern States do not pay a dollar to sustain the press of Michigan, or of any other western State; and every farmer or other citizen when he is making up the list of papers which he calculates to take for the year, should bear this fact in mind.—What for instance has the *New York Ledger* done except to corrupt the minds of our youth, and yet how many hard earned dollars have gone out of this State, to aid the publisher to live in the utmost luxury, to drive round in the most gorgeously equipped carriage, and to buy terms of horses for thousands of dollars, that can out-trot any other span on Long Island? So with many others we could refer to.

Many of the editors of the State help to sustain this order of things by falling into the traps set by these speculators, and for the delivery of some journal without an exchange, they extol the merits of these eastern papers beyond all reasonable limits, advertise them and urge their subscribers to send for them, forgetting that they are thus aiding to send out of the State a large portion of capital that might be used in their own State or county to a much better advantage, by sustaining its press, and thus aiding to sustain, extend and improve their own business.

A case of this kind came to our knowledge a short time since which was very properly treated. An eastern agricultural journal, whose editor almost looks upon Michigan as his barnyard, has recently flooded the State with his offers to journals to join with him in getting up clubs, and to advertise his paper for nothing, sent one of his proposals offering to supply his journal at almost the cost of the paper on which it was printed, if our informant would join with him to circulate his paper. The offer was very promptly spurned, and an answer sent back, that as a Michigan man and a Michigan editor and publisher, he felt it his first duty to promote the interests of the Michigan press, and he was not willing to allow himself to be made a tool of to injure it by any such coalitions.—There are many of the editors throughout the State who have taken the same stand, but there are also a large number who do not seem to regard this duty to themselves and the State as an important one. We think a little reflection would readily suggest that it is only by respecting their position, and not permitting themselves to be made the mere tools to build up outside interests, that they can best promote their own business and interests, and cause the press of the State to occupy its legitimate position.

## To Our Subscribers.

We have mailed the prospectus of the new volume of the FARMER to all our subscribers for the present year, and it will be seen that we have offered it on the most reasonable terms. Most of those who have been our readers for the past year, are those who have been steady

supporters of the Michigan FARMER for many years, and all of them possess more or less influence in their neighborhoods. They can at this time do the FARMER a great service by enlisting one or two of their neighbors to join with them as subscribers for the coming volume of 1860. There is not one amongst them that cannot add two new names to their own. We ask them to try, and forward all they can by New years. There is no New year's present that seems to an editor equal to a good large club of subscribers at the beginning of the year. We have proved that the farmers of Michigan can have a weekly journal of their own, will they not do their share to sustain it?

## A Doubt Solved!

A great many of the old subscribers of the *Monthly Farmer* last year, held off their support from the *Weekly* because they had some doubts whether it would last the year out, as they did not think the State could sustain a Farmer's weekly paper. This feeling, which was fostered and spread by the agents of eastern rural Journals, prevented a large number of old friends from venturing to give the *Farmer* their usual patronage, and of course made the first year of the *Farmer*, a difficult business, but we entered upon it with the determination that this volume should be published if it swept off every rag we possessed. Our readers know that we have placed before them a Journal equal in general character to any paper of a like kind in the Union, and far superior in usefulness to the citizens of Michigan to any eastern rural humbugs with which we are annually flooded. Now that we have solved the doubts as to whether a weekly agricultural paper can be published in Michigan, will not those who feared the result, come into the ranks once more and give us again their right hand of fellowship, with a hearty word of encouragement for this volume? We want to see their names on our books once more.

## Death of Washington Irving.

The patriarch of American literature, Washington Irving, died on the evening of Monday last, at his residence at Tarrytown.—Though the event was not unlooked for, still the passing away of one whose name is so familiar will not be learned without a feeling of regret. Washington Irving was in the middle of his seventy-seventh year, having been born in New York, April 3, 1783. The immediate cause of the death of this great and good man, seems to have been a disease of the heart. A sudden attack almost instantly deprived him of life as he was retiring to rest. He thus passed into that other world with little pain or suffering in this, but in accordance with the quiet tenor of a long and blameless life, during which his name had become a source of national pride.

## Going the Rounds.

"As we expected, our article on increasing the growth of wool, which was stolen outright by the *Battle Creek Jeffersonian*, is copied into the MICHIGAN FARMER with due credit to the first named paper. Also, an article appears in the same number of the FARMER credited to the *Bay City Press*, which was original in the *Democrat*. It was headed "Northern Michigan—O-Tawas." We were not aware that it was one of our duties to find ideas for the entire Michigan press, but we are willing to do so to the best of our ability if the favor is duly acknowledged; otherwise we must pronounce the appropriation of them—PIRACY!"—*Genesee Democrat*.

We gave credit to the papers where we found the articles appearing as original, or at least without credit, and supposed the *Jeffersonian* and *Press* came honestly by them. If the *Democrat* was a little more regular in its appearance among our exchanges we might stand a chance to get the first cut at its "ideas," and not be obliged to take them second-handed, and then be charged with piracy, when we told right out where we found them. Anything relating to the opening and settlement of the new northern and western counties of our state, possesses a local and peculiar interest, and we are anxious, for the benefit of our readers, to avail ourselves of all the information that comes in our way, from whatever source, and quite as anxious to give all credit where it is due.

**Sale of Valuable Stock.**—We call attention to the advertisement of Messrs. Hunter and Brooks, who offer for sale, on the 14th instant a very large lot of thorough bred and grade stock. Mr. Hunter has sold his farm, and offers all his stock, most of which have been bred from the thorough bred stock brought in by Mr. Brooks. Mr. Brooks' animals consist of thorough bred stock that has been bred by himself, and among which is a three year old bull sired by imported John O'Gaunt, of unmistakable quality.

## Death of a Distinguished Sheep Breeder.

We note that the death of WILLIAM JARVIS of Wethersfield, Vermont, is announced as having taken place on the 21st of last month. Mr. Jarvis was 89 years old. This gentleman's name is intimately identified with the introduction of the Spanish Morino sheep into the United States. He was the American Consul at Lisbon more than forty years ago, and after much exertion, at last made a very large purchase of several of the breeds for which Spain was famous. In fact, in 1809 and 1810, he shipped fourteen hundred Pular Merinos, seventeen hundred Acquirers, one hundred Negrettis, two hundred Escurials, and two hundred Montarcos, and these formed the origin of the immense flocks of Spanish sheep which now dot the country from one end to the other. Mr. Jarvis must have looked back with eminent satisfaction to the great service he rendered the country, and have watched with attention the gradual increase of the interest to which he had been the first to give an impulse. Few men have done more for the country, and yet we hear of no grand processions, no great display of citizens, with banners and music, and solemn requiems and grave dirges, no flaunting eulogies, no sermons displaying his patriotism, and its rich reward. All that tells of the departure of this distinguished Farmer from the land he has done so much for, is the newspaper notice, which notes his death as one of the incidents of the day. Yet who will not say he was worthy of the highest honors than most of those to whom they are given?

## The "Terra-Culture" Dodge.

"Professor" Comstock is having a good time in some portions of Pennsylvania, where he has been getting up clubs to induce farmers into his "Secret," as Prophet Ryan would call it. General James S. Negley of Pittsburg has been putting him through a course of Pennsylvania militia tactics, and charges home upon him with such sharp weapons that the Professor beat a retreat, rather than run the risk of being prosecuted for obtaining money under false pretences. This was the kindest of cuts. We have known the "Professor" for some twelve or fourteen years, and his presence was always marked with such a rare sublimity of humbug, that we did not suppose any one could possibly be mistaken, after listening to him, that he did not receive a most salutary lesson in the pleasant art of transferring a dollar or two from his own pocket into those of another man, with as slight a consideration in return as could be got up. Comstock is a practiced juggler, and knows how to do the trick in a very handsome agricultural way. The Pittsburgh people do not seem to have considered his tricks a good joke at all. They were mistaken in their man, or else he was, when he exhibited his secret at that place.

**The Washenau County Society.**—The Society held an adjourned meeting at Ann Arbor on the 18th of November, at which a Committee, consisting of Messrs. Maynard, Gregory, Sheldon, Hill, Phelps and Uhl, was appointed to propose and recommend such alterations and amendments to the constitution as might be deemed proper and necessary, and to have the same published at least ten days previous to the annual meeting to be held the first of January next. This movement is evidently intended to strengthen and promote the true interests of this society, and to unite the agricultural interests of the whole county. We sincerely hope the result will prove beneficial.

## Literary News.

**Blackwood.**—This old favorite of the British reprints comes promptly to hand. The table of contents for the number is as follows: The French on Queen Mary; Vanghan's Revolutions in English History; The Luck of Lady Medea—Part 9; Captain Speke's discovery of the Source of the Nile; A Week in Florence; The Idyls of the King; On Allied Operations in China; The Future of India and her Army.

Leonard Scott & Co., of New York, republish from the English editions, the four Reviews, viz: The London Quarterly, The Westminster, The North British, and the Edinburgh; and these in connection with Blackwood monthly, are furnished at \$10 a year; or Blackwood with any one of the four Reviews, may be had for \$8.00. Now is a good time to send in subscriptions.

**Cosmopolitan Art Journal.**—This splendid Quarterly for December is received. It is one of the most superb numbers yet issued. The frontispiece, from a painting by Mrs. L. M. Spencer, is a most life-like and beautiful picture; there are several handsomely illustrated poems, portraits of Wm. Gilmore Simms, Harriet Hosmer, and Wm. Page, and many other engravings. The reading matter is of superior merit, with the exception of one or two far-fetched and over-strained poems, such as the *Autumnalis*, *The Witch's Deed*, &c. The Art Journal is published at \$2 a year.

**Merry's Museum.**—The little ones who are lucky enough to belong to the Merry Family will be

pleased with the treat Uncle Hiram has prepared for them this month. For some little boy who does not see the Museum, we have copied what Norman says of his kiten. The Museum is published in New York at one dollar a year, monthly.

**American Stock Journal.**—It will be seen by reference to our advertising columns that Mr. Linsley, the publisher of the above Journal, has associated with him in its editorial management, Geo. H. Dadd, the most able writer on veterinary science in this country. Such an arrangement will give a double interest to the work, and make it more than ever desirable to all interested in the raising and care of stock.

## General News.

—By the arrival of the steamship Africa, we learn that after a very protracted session, the Zurich Conference has accomplished its object in the preparation and signature of the treaty of peace. But things seem to limp along very suspiciously still. From Vienna we have intelligence that the reactionary party is again in power and that no reforms are impossible, while in Venice the reign of terror is again inaugurated. The national assemblies of all Central Italy have united in calling upon Prince Carignano to accept the regency under the sovereignty of Sardinia; but the latest news is that Sardinia, under inspiration from France, has refused permission to the Prince to accept it. A very curious item is telegraphed, to the effect that the Emperor of Russia and the Prince Regent of Prussia had, at their late meeting, determined to adhere to the treaties of 1815! Further, it is stated that they will not go into a European Congress in which England is not represented. If there be any foundation for these reports, they indicate an agreement between Russia, Prussia and England, which bodes no good to French schemes. Any such combination would make the approaching European Congress the scene of a remarkable struggle. As to that Congress, it is now said that the Turkish question will also be introduced into it. But the truth is, that European affairs are all in confusion at present, and these things are only talked of and possible.

—The first train consisting of an engine and single car, having on board about fifty persons, ran over Victoria Bridge at Montreal on Thursday afternoon. The train occupied in passing was about 13½ minutes.

—The construction of a railroad has been commenced in South Africa. The first of eight locomotives for the road is already finished.

—In Holland there are three assurance offices for cattle's lives.

—America's greatest author, Washington Irving, died on Monday last at his home on the Hudson. He was seventy-seven years of age. His last work, the *Life of Washington*, was only completed last spring.

—The opposition have carried New Jersey in the election of Governor by a majority of 1,800.

—It is stated that John Brown's fate is sealed. Gov. Wise has determined on granting no reprieve. The most stringent regulations have been adopted in regard to the presence of civilians at the execution. All applications for passes for civilians to attend within the military lines are refused by the Governor on the ground that it would conflict with the military programme. He said that civilians could not, under any circumstances, be admitted within the military lines, the outer one of which would be nearly a mile from the scaffold. Not a word of what John Brown may utter, if he should say anything, will therefore be audible to the men forming even the line next to the gallows. Gov. Wise stated the cause of this exclusion of all persons other than the military to be that in the event of an attempted rescue an order to fire upon the prisoner will be given, and that those within the lines, especially those sufficiently near to hear what Brown may say, would inevitably share his fate.

—The case of George C. Bates, of this city, against the Illinois Central Railroad Company, has again been decided in favor of the road. The case involves property to the amount of some two millions of dollars. There is some talk of further appeal.

—The screw steamship Indian, bound from Liverpool to Portland, Maine, went on the rocks on the coast of Nova Scotia, on Monday last, and went to pieces. She had on board 138 persons, with 800 tons of freight and some specie. The passengers and crew took to the boats. One of the boats capsized, drowning several persons. An other was stove alongside the steamer, and two other boats, with passengers and seamen, drifted to sea and have not since been heard from. A schooner has arrived at Halifax with twenty-four rescued persons. The number of lives lost is not yet known.

—The Marquis of Westminster recently appeared at court, wearing a sword, on the pomel of which was a diamond worth \$150,000.

—G. G. Polindexter, the editor of a Democratic paper in Nashville, Tenn., was shot dead, on the 19th inst., by A. A. Hall, the editor of a Republican paper in the same city. A political controversy was the origin of the difficulty.

—The La Crosse papers state that a larger emigration is now crossing the river at that point into Minnesota than has been known since 1850.

—Thirteen of the students of the Connecticut Literary Institute were lately expelled for participating in a social oyster supper.

—Gen. Seward was presented, in Alexandria, with three superb Arabian horses, which will be shipped to this country. Two of them will be presented to the New York State Agricultural Society.

—The next session of Congress begins on Monday next. Washington is rapidly filling up with members, politicians and political schemers.

—Advices from Hayti of Oct. 29d, state that twenty individuals concerned in the recent conspiracy and the murder of the President's daughter, had been tried, convicted and sentenced to death. Sixteen of them had been already hung. One had been respited, and three had previously escaped to France.

—One of the humanitarian movements of our times, although little known as such, can hardly be over-estimated in its importance upon the well being of our widely scattered communities. The population of the American States is in many sections so sparse, that skillful Physicians are hardly available to them. Vast numbers of the people are obliged to employ in sickness, such medical relief as they can hear of from each other, or indeed any they can get from any quarter. Hence arises the great consumption of Patent Medicines among us, greater by far than in any of the old countries, where skillful Physicians are accessible to all classes. Unprincipled men have long availed themselves of this necessity, to palm on their worthless nostrums, until the word has become synonymous with imposition and cheat. One of our leading chemists in the East, Dr. Ayer, is pursuing a course which defeats this inquiry. He brings not only his own, but the best skill of our times to bear for the production of the best remedies which can be made. These are supplied to the world, in a convenient form, at low prices, and the people will no more buy poor medicines instead of food, at the same cost, than they will buy instead of flour. The inevitable consequence of this, is that the vile compounds that flood our country are discarded for those which honestly accomplish the end in view—that cure. Do we over estimate its importance, in believing that the prospect of supplanting the by-word medicines, with those of actual worth and virtue, is fraught with immense consequences for good, to the masses of the people.—*Gazette and Chronicle, Paris, &c.*



## The Household.

She looked well to the ways of her household, and ate not the bread of idleness.—PROVERB.

EDITED BY MRS. L. R. ADAMS.

### LAYING DOWN THE KINGDOM.

BY F. R. OXLEY.

So Thomas is going to get married,  
No thought of regret or surprise;  
To bring home a bride, a young wife,  
He has said it himself, and he never  
Deceived or joked me in his life.

When William got married it gave me  
No thought of regret or surprise;  
For the boy seemed just made for a woman—  
To live in the light of her eyes.

And when Clara was wed to the Southron—  
Though Clara, my daughter, was dear—  
And removed to the far Rappahannock,  
It cost but a sigh and a tear.

But Thomas, my staff and my eldest,  
Seemed never to care for the girls,  
So proud, like the oak, to surrender  
At last to soft eyes and soft curls.

Since John died—six years ago Christmas—  
Our Thomas—his always the same—  
With more than the strength of his father  
Has stayed up the house and the name.

I never once thought he could marry,  
So kindly, so firm and so kind—  
Ah! tears will come: they are needed;  
For my old eyes, indeed, must be blind.

He tells me I'm getting so aged,  
I need more repose, more fresh air;  
So a daughter he'll bring me to lighten  
My burden of labor and care.

Ah! he may think so; he brings me  
A mistress, it must be, instead,  
The scepter must pass to another,  
And I to my grave, or my bed.

But, hold! It is well. O my Father!  
Help me to subdue my proud heart.  
I have reigned like a queen; but 'tis over;  
And another of right takes the part.

I yield her my empire for ever:  
And, Thomas, I'll love all that's thine.  
Thy chosen shall have all her honors,  
As I've always had all of mine.

Come hither, my little man, Tommy,  
Come hither, my roebud, my Jane!  
You are Grandmother's darlings and treasures—  
Her pearls hung about her again.

Not Papa, Uncle Will, nor Aunt Clara—  
So grand and so sweet when she comes—  
Ever gave me one-half of the pleasure  
Of these little sproutings of Tom's.

They have kisses and cheer in the morning;  
They have kisses and cheer all day long;  
And their sports and their grins so alarming,  
Which always are cured with a song.

They know where to find a comforter:  
As little birds fly to their nest,  
They climb Grandmother's knees for a cover,  
And always find peace on her breast.

—N. Y. Evening Post.

### Are they Asleep?

"How quiet the women are now-a-days," said a person in our hearing a day or two since. "I wonder if they are all asleep? I don't hear anything of Bloomer conventions, Woman's Rights movements, and the like, and I guess the ferment has subsided, and they have concluded to settle back to their old ways again. After all, the hubbub they stirred up has not done the world much harm."

What a philosophical consolation is this, thought we, even if the case were as he thinks. But is it so? The "ferment," as he calls it, may have subsided; there may be less talk and loud clamoring for rights, but there is more earnest work and a more serious laying hold of the rights within their reach, among women now than ever before. What is the man doing with his eyes and ears that he does not see and hear what is going on? That he does not see that this very quietness is ominous of a deeper working of the leaven that has been hid in the measure? Women are taking hold of labor, assuming duties and filling positions of responsibility that but a few years ago seemed entirely out of their reach, beyond their ability, above or below their sphere. They are learning, individually now, it will be generally by-and-by, to make use of the one inherent right of their natures which is the charm that will bring within their reach all the rights and privileges they can ask or desire, and that is the use of their own common sense. Now that they have found out that they have this very homely but useful attribute, and the right to exercise it, it is wonderful what works they can do, and how quietly they can do them.

No; the "hubbub" stirred up by the "strong-minded" women has not done the world any harm. An unconscious demonstration of some sort was necessary to wake people up, to set them thinking. Those who went forth first to break up the ground, and sow the seed had a stormy time of it; they needed all the courage and boldness they manifested, and perhaps even the coarseness of some was necessary. There was a great deal of coarse work to be done. But the seed was sown, and it is springing up in a thousand forms all over our land, wherever women live and think. Like Rosa Bonheur, they are learning that they have abilities of their own, and that it is not necessary to ask if they may

use the faculties God has given them. The first question is, "What is to be done?" The second, "Can I do it?" not may I?

Women are startled out of the old beaten track, where troops of pale seamstresses down to the dark valley while life was yet in its morning. They have learned to think, and are learning to act as well. Some of them are becoming eminent as artists, some noted for their professional skill, many, very many as authors, while in more private and quiet ways others have let the ferule and the needle go, and have literally taken up the "shovel and the hoe" and gone out to cultivate the fields and work out their own independence together. Now that this idea of turning florists, fruit growers, and even wholesale farmers is proved really practicable by women themselves, we are inclined to think that men need have little fear of their rivalry in politics or affairs of the government. After enjoying the fruits of their labor in the shape of roses and raspberries, peaches and potatoes, women will not care to dip their hands, hardened though they be by labor, into the miry, troubled stream of politics. On the other hand, the girls need not fear that their fathers and brothers, usually so jealous of their prerogatives, will claim exclusive right to the plow and the hoe, and so drive them from the gardens and the fields back upon their spelling books and their needles again. No; the inquiry is not even made as to whether they will be "out of their sphere" or not, and they are not only welcomed, but urged to go forth with promises of delicious fruits and tempting flowers. The best of it all is, that they know their labors there will meet with the promised reward. They are not working blindfolded, neither are they asleep.

### Sewing Machines.

"What! Puffing those expensive things again?" No, not puffing; they do not need it; they can sing their own praises, and do so wherever they go, with far more effect than any words of ours could have. We wish now simply to call attention to the new advertisement of the Messrs. Griggs, of this city, the agents of Wheeler & Wilson's patent, for Michigan. It will be seen that they offer machines at reduced prices, and warrant them equally efficient for work with those of higher cost and finish. The superiority of these machines for family purposes over all other patents now in use, is fully attested by the long array of first premiums they have received at public exhibitions, as well as by the general satisfaction they give, where properly managed, as a help in the household.

We have often been asked the questions, "Now, honestly, what do you think of sewing machines? Are they real, permanent helps, or only expensive pieces of furniture to be experimented with awhile, and then to be thrown aside among the three-minute charms and patent washing machines?"

We answer, "honestly," that we think they can be made as useful and efficient in the manufacture of garments from cloth as a loom is in making cloth from yarn, and they are full as much judgment on the part of the operator to make them so. Almost anybody, having the use of their feet and hands, can get into a loom and make the treadles go, and throw the shuttle back and forth, but it wants common sense combined with good judgment and some experience to make a handsome piece of cloth, with a proper selvedge and all the threads drawn evenly. So with a sewing machine. Any heedless girl may sit down to one and make the wheels buzz and the needle fly as she pulls the cloth rapidly along over the table, and the seam may be stitched together, after a fashion. But this is not sewing. Some stitches will be drawn too tight while others will be loose, leaving the thread lying in a straight line along one side of the fabric. Then perhaps the mother examines the work, and, in attempting to straighten the seam, snaps a thread, and away go patience and faith together; the inventors are pronounced swindlers and the machines are humbugs. Many a woman has been in this way disappointed and disgusted with her purchase, not from any fault of the machine, but simply from want of brain to guide it aright. Good judgment, patience and perseverance in the operator are necessary to success. Cunning as the inventor may be, he cannot endow the work of his hands with mind.

To make work done by these machines reliable, great care is necessary to have them run with equal speed from the beginning of the seam to the end, as a swifter or slower motion of the foot changes the tension, making some stitches tight and others loose, and often drawing the cloth in such way that the threads are sure to break when going through the washing, wringing and ironing processes.

At the late exhibition of the American Institute at Palace Garden, New York, the Committee on Sewing Machines made a very able and discriminating report, pronouncing upon the various merits of the many patents offered. We quote some remarks, and what they say of the Wheeler & Wilson.

"Sewing Machines, considered in their social, industrial, and physiological bearing upon society, are second in importance to no material agent of the day. Economizing nine-tenths of the time required for sewing by hand; eliminating most of the evils of needlework; enlarging the sphere of woman's employment by creating new and profitable branches of industry; relieving the housekeeper of her most grievous burden, the Sewing Machine ranks with the fabled deities as benefactors of humanity."

"CLASS 1st, includes the Shuttle or Lock Stitch Machines for family use, and for manufactures in the same range of purpose and material. The Committee has assigned this class the highest rank, on account of the 'elasticity, permanence, beauty, and general desirableness of the stitching when done,' and the wide range of its application. At the head of this class they place the Wheeler & Wilson Machine, and award it the highest premium. This has been the uniform award for this machine throughout the country for several years, and we think no disinterested person will dispute its justice and propriety."

If any one wishes to see these machines in operation, with all their improvements, and to be shown what they are capable of doing, call on the gentlemanly agents at their rooms nearly opposite the FARMER office in this city. The success they have met with is well merited.

### Claims of Farmer's Wives.

A good deal has been said of late, and a good deal more thought, about the dependence of farmer's wives upon the too often limited generosity of their husbands for spending money, or the means by which they may furnish their houses and themselves with needed comforts and conveniences. It will be remembered that some hints were given on this subject by a Farmer's Wife, in our paper last winter. A writer in a late number of the *North Western Farmer*, complains that Illinois husbands are no more generous than others, and suggests the same remedy as that recommended by our correspondent. What is claimed is nothing more than reasonable and right, and it is to be hoped that all sensible men will agree to the terms proposed. The writer referred to says:

"I've been thinking, why we are made weekly, monthly, or yearly beggars, in order to keep the shuttle moving in weaving this wondrous fabric called the Household, where every thread must have its support and be straight, and we must supply it! Beggars, I say, for we are often received as such at our husbands' purse-strings, and when the means is given, the solemn injunction to spend it carefully, as it has cost him days of hard labor! And our hearts interpret it thus—he had rather have bought another field to be carelessly farmed, than to help to lessen our burden. 'Cost him hard work!' And what have we worked for these long harvest days, when we never grudge the harvest hands that yellow butter which cost us so much labor to prepare? Yet beneath its vanishing shadow drifted dreams of new dresses, table cloths, or perchance, 'wee' pink dresses or shoes."

"But it was not my intention to complain, but rather to suggest a remedy. In Autumn, or the forepart of winter, the farmer generally sells his pork and grain, and money comes in pretty freely to those out of debt,—and to such I am talking. Suppose, then, that you say to your wife, 'As you are my partner, I will give you a certain per centage of all I make off the farm—(being careful first to ascertain that it will cover all household expenses.) You can keep your own books and your own purse, and if you can save anything out of your income, it is yours to do with as you please; and if, from any unforeseen cause, it should prove insufficient, I will assist you.'"

"What an encouragement to industry and economy in the housewife would such a course be! What an independent thought that she is no longer a beggar and servant, but an equal! She knows on what she has to depend, and husbands her resources accordingly. 'She can buy a thing when she needs it, and when she can get it the cheapest, and save many a dime by having ready money at hand.'"

What is Needed.—We need for our dwellings more ventilation and less heat; we need more outdoor exercise, more sunlight, more manly, athletic, and rude sports; we need more amusements, more holidays, more frolic, and noisy boisterous mirth. Our infants need better nourishment than colorless mothers can ever furnish; prefer milk than distillates; can manufacture; our children need more romping and less study. Our old men more quiet, and earlier relaxation from the labors of life. All men, both young and old, need less medicine and more good counsel.

### RECOLLECTIONS OF IRELAND.

PREPARED FOR THE YOUTHFUL READERS OF THE MICHIGAN FARMER: BY SLOW JAMIE.

NUMBER TWENTY-ONE.

December.—The sun is now scarce six hours above the horizon. The farmer pounds away all day with his flail, and sometimes continues his work during a part of the night. At dark the weaver and the spinner have accomplished about half their day's work, yet bed-time finds it snugly finished. Commonly the ground is bare and soft this month, but sometimes it is frozen, and even covered with deep snow which may lie, for some days, or even weeks. The rabbit and the hare will lie under it, for a few days, probably in a drowsy state, and not feeling any hunger. Then if it does not thaw they work their way up and look round the hedges for blades of grass or tender twigs. They even come round the stables to pick up bits of cabbage, blades or turnip tops. If they turn white with the cold weather, people are alarmed and think it some witch come in the shape of a hare, and has sucked the cows till she is white with milk.

The thorn hedges now abound with red haws, and black sloes, the former sweet, the latter sour. They are pleasant (at least the red haw is) to eat, and they nourish the robin red breast and a few other birds which frequent the hedges all winter.

Scholars cannot now get to school by nine, so it takes up at ten, and keeps till three. Long ago they used to meet at seven in the winter, recite by candle light, and then go home to breakfast, but in my time they did not meet till ten, and had only one session a day. Every scholar (except those who didn't) brought a turf under his arm, threw it in the corner, stood a minute or two beside the fire, and then marched off to his seat. A little bit of a turf fire threw no heat to the back part of the house, and many a cold toe and finger had to weather it out till evening. We would often leave our seats, and go to the fire to warm, but perhaps we had only smelled the fire, when the master would order us off to our seats. We always called the school teacher the master, and that was a much more appropriate name than teacher.

When Christmas came around, we always got a week of holidays from that till New-years. But to be entitled to that, we had to bar the teacher out, and refuse him admittance till he promised us the holidays. Sometimes he would get to school before any of the scholars, and sometimes he would force the door and take up school. In such cases, the scholars had to come to order, and go to their books. Through the day, however, he would step out a moment, or perhaps some stranger appointed by the scholars would take him out to speak to him. The scholars would then slam the door, pile the seats against it, and hold down the windows. I was always in terror in such cases, lest he would force his way in, and flog us every one. It seemed strange to me the grace with which he submitted, and came in and dismissed the school quietly. It was very unlike his domineering air at other times. When, after the hurly-burly, he came in, had the books and seats collected, and put away in the cupboard, gave the usual orders to come that day week in good season at ten o'clock, we marched out with light and joyous hearts. We had conquered the master, and that was a feat. It is true, there was a humbling impression that he could have tried harder if he had wished, still to beat the master in any contest or in any way, was something we were not used to. Besides, we had gained our liberty a whole week, and a week is a long time. Seven mornings, seven days, seven evenings, and seven nights, we were delivered from that cold school house, and those musty books, and that frowning face. And then what enjoyment we would have! We could play all the time, we could plait whips the rest of it, and catch sparrows when we had nothing else to do. Such were our thoughts going home. But, in the first place, the week always came to an end, and that remarkably soon.

In the second place, we did not play all the time, nor half the time. Either we could not get making a noise in the house, and it was too wet to go out, or something else stood in the way.

In the third place, when New-years came, and we had to return to school, the sparrows were still in the hedges, and worse than that, the cages we intended to put them in, were still unmade.

In the fourth place, besides all these negative evils, there were positive ones; we dirtied our clothes and got scolded for it; we woke the baby and got slapped for it; we broke a tea cup and got spanked and put to bed. So passes the weary life of boys. Happy are they

that expect nothing, for they alone will escape disappointment.

And now, dear readers, if you expect anything more from me on this subject, you will be disappointed too; but perhaps you will hear from me, after a while, on something else. Good bye!

### Grace Greenwood's Lecture.

Grace Greenwood, Mrs. Sarah Jane Lippincott, has been lecturing at the Tremont Theatre, Boston. The *Transcript* thus speaks of her:

"The immense audience which collected at the Temple last evening had an excellent opportunity of studying womanly genius as exhibited upon the lecture platform. The exhibition was one calculated to gratify the prudent advocates of woman's rights. It is seldom that any assembly is treated to a popular effort containing so much lofty sentiment united to practical good sense, as characterized the lecture by Mrs. Sarah Jane Lippincott, upon 'The Heroic in Common Life.' Besides the sterling thought abounding in the production, there was a naive humor in parts of it, which excited frequent marks of approbation. 'Fine writing' was scattered throughout the lecture, which gave evidence of the wide range of the vocabulary of its well known author. Mrs. Lippincott lacks only a little of that 'blood, muscle and backbone,' of which she spoke, to be one of the most charming women ever presented to an audience."

We give a few extracts from the lecture as reported:

"Among our peculiar reforms, the Woman's Dress Emancipation is perhaps the least seriously thought of. It has against it, fashion, taste, custom, dealers in dry goods, undertakers, and the sentiment of the street (Laughter). It claims for allies, only health, comfort, economy and common sense (Laughter and applause). It has fought gallantly an unequal fight, and has given examples of a kind of heroism to be respected, if not imitated; admirable, if to a degree wasted. It takes rarer nerve, often, to face a jeering rabble, than a line of bayonets. I have had my heroic moments, when I even dreamed myself equal to the role of Joan of Arc and Grace Darling; but never, in my utmost exaltation, have I felt capable of leading in this desperate effort to row against the wind and tide—perchance the mountainous billows, of ridicule. I might be tortured by the pin-pricks of newspaper wit, and 'smile amid my pain'; I might be cut by high fashion, and survive; but I must confess, 'Young America' on the street corners, would appal me! (Laughter and applause.)"

### THE HEROISMS OF PRIVATE LIFE.

"The heroisms of private life, the slow, unchronicled martyrdoms of the heart, who shall remember? Greater than any knightly dragon-slay of old is the man who overcomes an unholy passion, sets his foot upon it, and stands serene and strong in virtue.—Grander than Zenobia is the woman who struggles with a love that would wrong another or degrade her own soul, and conquers. The young man, ardent and tender, who turns from the dear love of woman, and buries deep in his heart the sweet instinct of paternity, to devote himself to the care and support of aged parents or an unfortunate sister, and whose life is a long sacrifice in manly cheerfulness and majestic uncomplaining, is a hero of the rarest type—the type of Charles Lamb. I have known but two such."

The young woman who resolutely stays with father and mother in the old home, while brothers and sisters go forth to happy homes of their own, who cheerfully lays upon the altar of filial duty that costliest of human sacrifices, the joy of loving and being loved—she is a heroine. I have known many such. (Applause.) The husband who goes home from the weary routine and the perplexing cares of business with a cheerful smile and loving word for his invalid wife; who brings not against her the grievous sin of a long sickness, and reproaches her not for the cost and discomfort thereof; who sees in her languid eye something dearer than girlish laughter, in the sad face and faded cheeks that blossom into smiles and even blushes at his coming, something lovelier than the old-time spring roses—he is a hero. I think I know one such. (Laughter and applause.)

The wife who bears her part in the burden of life—even though it be the larger part—bravely! cheerfully; never dreaming that she is a heroine, much less a martyr; who bears with the faults of a husband not altogether congenial, with loving patience and a large charity, and with a noble decision hiding them from the world—who makes no confidants and asks no confidences, who refrains from brooding over short-comings in



sympathy and sentiment, and from seeking for perils "affinities" (laughter) who does not build high-tragedy sorrows on the inevitable, nor feel an earthquake in every family jar, who sees her husband united with herself indissolubly and eternally in their children—she, the wife in every truth, in the inward as in the outward, is a heroine, though of rather an unfashionable type.

## BACKBONE.

Mrs. L. then spoke of what she called the undeniable fact that since the heroic days of the Revolution, the women of America have woefully degenerated in blood, muscle and back-bone.

"Now, for a moment," continued Mrs. L., "let us suppose the city of Boston besieged by some powerful force, and after making a brave resistance, as I have no doubt she would, compelled to yield at last to superior numbers; and let us suppose the conqueror, like Conrad, dooming to death the contumacious men of Boston, but granting to the women the same terms that were granted by him.—Alas! should the same happy thought occur to them, how few could or would avail themselves of it! (Laughter.) Though the spirit might be willing the flesh would be weak!—(Renewed laughter and applause.) Heart might hold out, but backbone would surrender! (Continued merriment.) Loving wives might resolve to die with their husbands, but not dare to attempt thus to save them.—Hearts would palpitate, knees tremble, and spinal cords grow limp as pack-thread at the thought! (Laughter and applause.) Here and there a rash Juliet, measuring her strength by her love, might make an effort for Romeo, but only to be compelled to lay down the dear burden—laying down, at the same time, the part of Capulet, and taking up that of the Nurse, to cry, "Oh, my back! my back!"—(Loud laughter and applause.)

In conclusion, Mrs. L. counselled her hearers not to allow the opportunities for the heroic deeds which occurred in common life to pass by, thinking them not grand enough for the experience, for by and by the work they rejected would be taken up, and the world hail it with acclamations and benedictions.

I doubt not, said she, we shall yet see that the heroic element in common life, in common people, is a sacred, sustaining power, vital and regenerating the heart's blood of the world. (Loud applause.)

## Curing Colds.

It would be to the saving of human health and happiness, and life itself, if the periodical press would never publish a receipt for any human ailment, which involved the taking of anything into the stomach.

Some scrap-editor characterizes it as an excellent remedy for a cough caused by a common cold, to soak an unbroken egg for forty-eight hours in a half-pint of vinegar, then add as much honey, break up all together, and take a tea-spoonful for a dose several times a day.

If the writer of that recipe had possessed the smallest amount of common observation he would have known that if a man begins to cough, as the result of a common cold, it is the efforts of nature herself attempting the cure, and she will effect it in her own time, and more effectually than any man can do, if she is only let alone, and her instincts cherished. What are those instincts? She abhors food, and craves warmth. Hence, the moment a man is satisfied that he has taken a cold, let him do three things: 1st, eat not an atom; 2d, go to bed and cover up warm in a warm room; 3d, drink as much cold water as he wants, or as much hot herb tea as he can, and in three cases out of four, he will be almost entirely well within thirty-six hours.

If he does nothing for his cold for forty-eight hours after the cough commences, there is nothing that he can swallow that will, by any possibility, do him any good; for the cold, with such a start, will run its course of about a fortnight, in spite of all that can be done, and what is swallowed in the meantime, in the way of physic, is a hindrance and not a good.

"Feed a cold and starve a fever" is a mischievous fallacy. A cold always brings a fever; the cold never begins to get well until the fever begins to subside; but every monthful swallowed is that much more fuel to feed the fever, and, but for the fact that as soon as the cold is fairly seated, nature, in a kind of desperation, steps in and takes away the appetite, the commonest cold would be followed by very serious results, and in frail people, would be almost always fatal.

These things being so, the very fact of waiting forty-eight hours, gives time for the cold to fix itself in the system; for a cold does not usually cause cough until a day or two has passed, and then waiting two days longer gives it its fullest chance to do its work before any thing at all is done.—*Half's Journal of Health.*

## A Chapter on Cooking.

Solon Robinson before the Farmer's Club of New York, gave the following spicy and reasonable lecture on cooking. There is much truth in what he says, and women are far too careless about the philosophy of preparing food. To get it done with as little trouble and care as possible, is the main thing. The consequences resulting from how it is done, are seldom thought of:

"A word about cooking our food. There is where we suffer, more than in the variety we consume. Simplicity in cooking is at an end. That went out when cooking-stoves came in. These iron monsters, that save fuel and consume human life; that have driven the old wood fire and great stone chimney and huge oven almost out of memory, except to a few old fogies, like myself, who have the harkback to declare that no man ever knew what a good roast was, whether of beef, mutton, veal, pork, goose, duck, or a glorious fat turkey, who has not eaten it that was cooked before a wood fire, suspended by a string, or supported by a spit resting on the ponderous fire-dogs. To be sweet, nutritious, and delightful to the palate, a roast must be cooked in the open air. The oxygen of the free atmosphere is just as necessary as fire to make a good roast.

"It is a condition of things unattainable in all the family of cooking-stoves and ranges, unless one lately invented obviates, in some measure, as I believe it will, this great difficulty, which makes us so long after the good old times of tow strings, spits, wood fires, and deliciously good, wholesome roast meat. Ah! how different from the empyreumatic masses of stuff called "roast meat," cooked in the almost air-tight oven of a stove.—And it is just as impossible to make good bread in one of these cast-iron monsters as it is to roast meat. Both meat and bread, it is true, may be cooked so as to be eaten, and a person who does not know any better, will suppose it is as good as it is possible to make it. It is not so. No man or woman ever ate stove-cooked corn-bread that was so good as an old-fashioned johnny-cake, baked upon a board set up between the fire-dogs. And who that ever tasted them can forget the Yankee "short-cakes" or raised biscuits, baked in the old Dutch oven, where the lid was only half on, or was often taken off to see that the baking did not burn, letting in every time a full charge of oxygen to be absorbed by the baking dough. There was in those days no danger of dyspepsia from eating hot bread. Depend upon it, this whole subject of food and its preparation needs ventilation. It cannot be too much thought of and talked of, in public or in the family circle, which, alas, no longer sits around the hearthstone of the great stone fireplace. I will answer the question as to the stove alluded to, that I hope will obviate some of the difficulties of cooking that I have mentioned. It is called "Pearson's Respiratory Cooking Stove," and was patented a year ago only, and of course has not yet got into general use. The principle developed is the true one, and it should be at once applied to all stoves and ranges. A current of air is drawn in and heated by the fire and conveyed into the oven, thus supplying oxygen that in a close oven is consumed and soon exhausted. It appears to be one of the greatest improvements in the cooking apparatus of the age ever invented. From my own experience, I must say that it appears likely to obviate my greatest objection to food cooked in an ordinary stove-oven. It is certainly very difficult to produce that empyreumatic condition of meat in the oven of this respiring stove that always attends the cooking in an ordinary one. The same smell attends the cooking in this that we have from a joint hung up before an open fire-place. That is, it is pleasant, instead of being very disagreeable, and often sickening, as it always is from a common cooking-stove. The new principle developed in this stove is cooking in currents of fresh air, by which meat is really roasted, instead of being baked; and all who have tried it appear to be unanimous in its approval. The principle is what I wish people to think of, and not any particular form of stove. I want those who have never eaten food cooked in any other manner than in a close oven-stove, to reason upon the subject with an inquiring mind, whether there is not some better way. I want them to know that meat cooked in a current of fresh air is not only more palatable, but more nutritious. For instance—this breathing-stove of Pearson's was tested about a month ago by a very respectable Committee of the Rhode Island Association for the Encouragement of Domestic Industry, and their report says that 'a fire was kindled in a medium-sized stove, and in 3½ hours they had upon the table 10 pounds of mutton, 9 pounds of roast beef, 8 pounds of steak, 8 pounds of sweet potatoes, 6 large pies, and a pan of biscuits; and that the meats were really roasted, and retained nearly all the natural juices, so that the taste was savory, delicious, rich, toothsome, just as they were in old time, when roasted before a wood fire.' I repeat: it is not so much matter what we have to eat, as it is how it is cooked. I am not here to give cookery lessons, but urge the necessity of thinking more upon this all-important question.

"I want somebody to think and act upon this principle, partially developed in Pearson's stove, whether working on a large scale cannot be done in ovens supplied with hot air from a distant furnace, as our rooms are heated. If air can be heated hot enough to drive a "caloric engine," perhaps it can be heated hot enough to bake a loaf of bread. Who knows? Do those who cook meat over fire to know why one piece is not only more toothsome, but more nutritious than another?

In the generally supposed simple act of boiling a piece of beef, there is great need of more thought. To day it is rich, juicy, nutritious. To-morrow, "as dry as a chip," and containing but little more sustenance.—Why? Both pieces were cut side by side, and both should have been equally good.—And being cooked only one day apart, it is in vain to charge it to the influence of the moon. It is rather the influence of ignorance on the part of the cook. I doubt whether one in ten of them can tell the cause of the difference. I have never yet found a servant girl that could be convinced of the important necessity of never putting a piece of meat into the pot, unless the water was boiling and the fire in a condition to keep it boiling.—The same principle is true of baking.—Always put the meat, or bread, at first into a very hot oven, or before a very hot fire.—That is one of the secrets of the johnny-cake—the dough was placed in such close proximity to the hot coals that it seared over and shut the sweetness in, and then had to be moved back a little to prevent burning.—And the secret of the ventilated, or hot-air oven, is, that a higher heat could be maintained, without danger of scorching. But enough of my lesson on cooking for one day. It is a question that will bear a great deal of talking about."

## Household Varieties.

*Paris Fashions.*—The signs of coming winter are abroad, in the shape of the light burnous or mantle, which half conceals and yet not hides the graceful autumnal attire which ladies are loth to quit. The large casaque in black silk are also much in vogue, as they are likely to be for a long time, being graceful and suitable to all seasons when lined according to the requirements of the temperature.

As for dresses, they are either plain or bedecked with flounces so numerous as almost to defy calculation. We have seen one regularly flounced all the way up to the top of the shoulder, comprising about two dozen flounces; and another in which there were as many, only more compressed, leaving about the third of the upper part of the skirt ungarlanded. Should this fashion prevail to a large extent the present number of modistes will not be able to satisfy the demands of their customers during the coming winter.

In bonnets there is little novelty to signalize, unless it be a tendency to slightly increase the size without altering the shape; the bayonets are still worn very wide, and the strings also.

Large chessboard-looking black and white woolen shawls are prevalent; and although we do not much admire them, still we must introduce them to our fair readers, as in duty bound.—*London Illustrated News.*

*Portrait of Rosa Bonheur.*—In person she is small and rather under the middle height, with a finely formed head, and broad, rather than high forehead; small, well defined, regular features and good teeth; hazel eyes, very clear and bright; dark brown hair, slightly wavy, parted on one side and cut short in the neck; a compact, shapely figure; hands small and delicate, and extremely pretty little feet. She dresses very plainly, the only colors worn by her being black, brown and gray; and her costume consists invariably of a close fitting jacket and skirt of simple materials. On the rare occasions when she goes into company—for she accepts very few of the invitations with which she is assailed—she appears in the same simple costume, of richer materials, with the addition merely of a lace collar. She wears none of the usual articles of feminine adornment; they are not in accordance with her thoughts and occupations. At work she wears a round plaid, or blouse of gray linen, that envelopes her from the neck to the feet. She impresses one at first sight with the idea of a clear, honest, vigorous, independent nature; abrupt, yet kindly; original, self-centred and decided, without the least pretension or conceit; but it is only when you have seen her conversing earnestly and heartily, her enthusiasm roused by some topic connected with her art, or with the great humanitarian questions of the day; when you have watched her kindling eyes, her smile at once so sweet, so beaming and so keen, her expressive features irradiated, as it were, with an inner light—that you perceive how very beautiful she really is.

Rosa Bonheur is an indefatigable worker. She rises at six and paints till dusk, when she lays aside her blouse, puts on a bonnet and shawl of most unfashionable appearance, and takes a turn through the neighboring streets alone, or accompanied only by a favorite dog. Absorbed in her own thoughts and unconscious of everything around her, the first conception of a picture is often struck out by her in these rapid, solitary walks in the twilight.—*Mrs. Ellet.*

## For Our Young Friends.

What Little Norman says about his Favorite Kitten.

My kitten is neat—  
She loves to eat meat;  
And whenever she pleases, can walk in the street.  
She never complains  
Of any hard pains,  
But always seems happy, except when it rains.

My kitten is sweet—  
She has little, soft feet;  
And the fur on her back is very complete.  
She seldom is sick,  
And always looks sleek;  
And whenever I call her she runs to me quick.

My kitten will play  
With a mouse as she may,  
Whenever one comes right along in her way.  
'Tis her nature, you see,  
Thus playful to be,  
Until she is tired—then quiet she'll stay.

My kitten is fat—  
She will soon be a cat;  
Instead of a mouse, she will then catch a rat.  
She will then use her paws,  
And scratch with her claws,  
And thus she fulfills one of pussy-cat's laws.

GRANDPA, in *Merry's Museum.*

**GROVER & BAKER'S**  
CELEBRATED  
**FAMILY SEWING MACHINES,**  
495 Broadway, New York.  
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A NEW STYLE—PRICE \$50.

This machine sews from two spools, as purchased from the store, requiring no rewinding of thread; it Hems, Fells, Gathers and Stitches in a superior style, finishing each seam by its own operation, without recourse to the hand-needle, as is required by other machines. It will do better and cheaper sewing than a seamstress can, even if she works for one cent an hour. Send for a Circular.

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FRESH APPLE SEED, 40 cts per quart, \$7.00 per bush.  
BLACK MAZARD CHERRY PITS, 50c per qt., \$10 per bush.  
APRICOT PITS, 75 cts per quart.  
STRAWBERRY SEED (18 varieties) \$2 per oz.

QUINCE SEED, \$3 per lb.  
WETMOUTH PINE SEED, \$3 per lb.  
HONEY LOCUST do 75 cts per lb.  
YELLOW DO do 75 cts per lb.

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On Wednesday, December 14th, 1859.

HAVING sold my farm, I now offer for sale, on the premises, in the town of Lyons, one mile south of the Grand River Plant Root on the town line between Lyons and Novi, the following property, to-wit: 16 head of cattle, consisting of Cows, Heifers and Calves, 1 three year old Bull, 1 span of Horses, 1 Lumber Wagon, 1 Lumber Sleigh, 1 set of Harness, Plows, Harrows, Chains, &c.; also a quantity of Hay and Corn Fodder.

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Also, on the same day and place, I will sell eight head of Cattle, consisting of Cows, Heifers, and 1 three year old Bull, stired by imported John O'Guinn.

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TERMS OF SALE—All sums less than \$5, cash; over \$5, a credit of one year will be given, with approved notes on interest.

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besides the decision of the Farmers in its favor, over all competitors, in many field trials, among the farmers themselves, with the single object of satisfying themselves which was the best machine.

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We intend to manufacture in the best manner, all the Mowers and Reapers which the farmers of Michigan need—if they will let us know in good time (and the sooner the better) how many they will want.

They cannot be hurried up on short notice, and the cash outlay for them is too large and the profit too small, for us to make a large number more than will be wanted. Therefore, when the farmer knows what he wants, the sooner he gives his order, the more certain he is to get the right article at the right time.

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### THE MARKETS.

#### Flour and Meal.

Since our last report encouraging commercial news has been received from Europe, the effect of which has been greatly to excite the New York market, and with it all smaller markets of the interior. The advance in flour in New York is thus shown:

Superfine western.....	Nov. 23.	Nov. 30.
Extra do.....	\$5 00@5 10	\$5 20@5 40
	5 20@5 35	5 40@5 65

In this city, the market has greatly increased in activity though but little improvement has taken place in prices. At the close it resumes its customary quiet state.

Flour—As high as 1,300 bbls have changed hands in one day during the past week, but more recently buyers have become less free and the market closes inactive. Prices are about a shilling higher than last week, being now \$4 87½@4 92½.

Wheat—The market has been very poorly supplied with this grain for a week past, and very few considerable lots have changed hands. The greater part of the trade has been monopolized by the city mills. Prices are fully up to the highest we have had this fall, being \$1 12½ for red and \$1 20½ for white.

Corn—Inactive. A few lots have been taken at about 60¢ for No. 1 shelled. Ear corn we quote 50¢ per 70 pounds.

Oats—Dull and nominal 30¢. No sales reported. Rye—In good demand at 65¢70¢. Very little arriving. Barley—Steady at last week's quotations. Prime readily commands \$1 40 per cwt, and some holders ask a few cents more. Fair quality we quote at \$1 38½@1 37. Potatoes—Quiet at 62½¢75¢ per bu.

Beans—Entirely nominal 65¢90¢. Grass seeds—Timothy is in fair request. \$2 per bu is offered, but there is none in market.

Potatoes—Dull at 25¢30¢, the latter for the best Melanochs.

#### Provisions.

Dressed hogs—The market is hardly supplied, and prices are fully 12½¢20¢ better than last week. We quote:

Hogs averaging 150 lbs.....	\$4 50@4 75
do 175 lbs.....	4 75@5 00
do 200 lbs.....	5 00@5 25
do 225 lbs.....	5 25@5 50
do 250 lbs and upwards.....	5 50@5 75

The prices for dressed hogs averaging 200 lbs at other western markets at latest accounts were as follows:

Cincinnati.....	\$5 00@5 00
Louisville.....	6 00
St. Louis.....	5 75
Chicago.....	5 50
Milwaukee.....	5 50

Mess pork—The better feeling in hogs has caused holders of pork to advance their views somewhat. \$15 50 a lb is now asked.

Beef—The Market for mess beef is steady at \$9 50 per bbl. Lard and Tallow—Are without change, being held at 11 and 10¢.

Butter—Also is steady at last week's figures. Prime brin commands 14½¢ and roll 14½¢.

Eggs—Scarce and in good demand at 16¢. Hides—Lower. Buyers now offer for green 4½¢, dry 14½¢; call for for green and 15¢ for dry; hogs 50¢@1 each; sheep pelts in good demand at 85¢@1 12 each.

#### Live Stock, &c.

In this city there is very little change in the live stock market from week to week. Now that beef packing is over the trade in cattle is confined almost exclusively to the supply of city butchers, and hence prices fluctuate but little. Sheep for the same reason are steady at former quotations. Hogs are scarce and in better demand for packing, prices for the same being a trifle higher than last week. We quote:

Extra beef per cwt, gross.....	@3 25
Fair quality.....	\$2 00@2 50
Live hogs (heavy).....	64 50
Live hogs (light).....	5 75@6 00
Sheep, each.....	2 50@3 25

The Albany live stock market is thus reported:

Cattle there is more activity in our cattle market this week. We notice the falling off of 500 head in the receipts, and this fact has tended to advance the price ¼¢ per lb live weight. The average quality is good—nearly if not quite equal to that of last week.

Prices—We raise our quotations ¼¢ per lb, live weight, on all grades. The sales made fully justify this.

Sheep and Lambs—The arrivals are heavy and the quality miserable, many of them being only "store." The weather is against the sellers, as the buyers have wanted cold, freezing weather, to encourage them to heavy purchases. Prices have fallen off about 30¢ per head, as will be noticed by the average paid by the heaviest purchasers here.

Milk Cows—In fair request. Sales about twenty, at prices ranging from \$30 to \$50.

Hogs—The receipts are increasing and the demand improves. The bulk of the business in live hogs at this point is transacted at East Albany. Last fall and winter nearly all the sales were made at West Albany. Instead of being brought to the city and taken across on the ferry boats, they are taken to East Albany by the way of Troy, and the trouble and expense of driving through the city is avoided. Twenty-three car loads, or about 3,000 head, went round by way of Troy, yesterday.

The telegraph gives the following synopsis of the New York market on Wednesday:

Beefers active at full live weight prices, ranging from 6 to 10, averaging about 8; some extra sold at 10½. Receipts 4,300.

Sheep and lambs active at full rates. Receipts 14,500.

The Pork Market—The Cincinnati Gazette seems to indicate that there will be a prospect of an advance in the prices of pork. It says:

"There is now a sweeping excitement in the market for hogs and products, which is carrying everything before it, and parties who undertake to keep in the current are carried ahead by the apparently mysterious influence that control the trade. Several houses dropped out when prices touched 60, and are holding back, awaiting the developments of the next two weeks, within which time it is supposed will be more liberal. A large number of hogs, and a still greater amount of products, have been sold short, the deliveries of the latter being chiefly for January and February, and thus a powerful 'bull' support is being secured. All this is working very well for farmers, who are realizing high prices for their hogs—fully 65¢ per head more than any reason to expect."

## BEE-HIVES!

IN 1854 I published in the "Farmer's Companion," an account of the new and important invention of Rev. L. L. Langstroth, of what he termed a "movable-comb Bee-Hive." The subject of bee culture had always been one of no small importance in my view, and for the last ten years I have watched with great interest the progress of Bee-culture both in Germany and this country. Since the announcement of Mr. Langstroth's invention I have been watching it closely, until I am well satisfied, from a full trial, that it is the most important step ever made in bee-keeping. And after ascertaining that it was no humbug, but that it was truly a great improvement on the old mode of keeping bees, I purchased the right and title to Branch and St. Joseph counties, Mich., and now offer individual rights in those counties. If after a fair trial the hive does not prove satisfactory, I agree to return the price paid and take the hive back; thus avoiding all risk on the part of the purchaser. All other movable frame hives are inferior to the Langstroth Patent, and preparations are now being made to prosecute all such imitations on the public. Address me at Burr Oak, [47-8m] CHAS. BETTS.

### IMPORTANT TO FARMERS.

**GEORGE BEARD**, Wholesale dealer in Oysters, Fruit, Game, &c., will pay the highest market price for all kinds of Game, Poultry, &c., at Russell House Corner, Detroit. 49-1y

### PURE BLOOD LEICESTER & SOUTHDOWN SHEEP FOR SALE.

THE UNDERSIGNED invites the attention of the Farmers of Michigan desirous of procuring Leicester and Southdown sheep for breeding purposes, to his flock from which he proposes to sell one and two year old, both ewes and bucks at low prices, also April lambs weighing from 80 to 100 pounds. E. T. BRYAN, Marengo, Calhoun Co., Michigan, Oct. 18, 1859. 49-4w

## WOOL! WOOL!!

### 30,000 POUNDS OF WOOL WANTED

AT OSBORN'S FACTORY in exchange for good substantial cloth such as DOESKIN, CASSIMERE, BLACK BROWN and GRAY CASSIMERE, SATINETT, TWEEDS, WHITE and RED FLANNEL, also STOCKING YARN, all of which were made expressly for durability. We will exchange for wool on the most reasonable terms, also wool manufactured on shares, or by the yard, also wool carded, and spun, and twisted at our usual rates. All those in want of a good article of cloth for their own use, will do well to send their wool to Osborn's Factory. All wool warranted well done and done to order. All wool sent to Ann Arbor by Rail Road will be promptly attended to. For further particulars please address at Ann Arbor. 28-6m H. OSBORN & CO.

### WALLACE'S WOOLEN FACTORY. BATTLE CREEK, MICH.

THE SUBSCRIBER continues to manufacture wool into CLOTH, CASSIMERE, TWEEDS and FLANNEL for farmers, either on shares or by the yard. Terms as reasonable as any other good establishment in the State. Goods warranted perfect, hand twisted, and durable, free from cotton, old rags or flocks. Farmers if you want a good article of cloth, send on your wool; it may be sent by express, and will be returned to you by express, and shall be promptly returned, and warranted to give satisfaction or all damages paid.

A large stock and good variety of cloths, stocking yarn, &c., always on hand. We will pay the highest market price in cash, or cloth at wholesale prices, for any quantity of wool delivered at this factory. Wool carding and cloth dressing done in the best manner on short notice. WILLIAM WALLACE, Battle Creek, Mich., 1859. 28-6m

### D. APPLETON & CO., 348 AND 348 BROADWAY, N. Y.

Have Just Published, VOLUME VII.—("Edw-Fue.")

### NEW AMERICAN CYCLOPEDIA: A Popular Dictionary of General Knowledge.

EDITED BY GEORGE RIPLEY and CHAS. A. DANA, Assisted by a numerous but Select Corps of Writers. The object of THE NEW AMERICAN CYCLOPEDIA is to exhibit, in a new condensed form, the present state of human knowledge on every subject of rational inquiry in SCIENCE, ART, LITERATURE, PHILOSOPHY, RELIGION, POLITICS, AGRICULTURE, MEDICINE, BIOGRAPHY, COMMERCE, MATHEMATICS, GEOGRAPHY, MANUFACTURES, ASTRONOMY, TRAVEL, HISTORY, CHEMISTRY, MECHANICS, TRADE.

With this design, the numerous Encyclopedias, Dictionaries of special branches of study, and popular conversations, Lexicons, in the English, French, and German languages, have, of course, been diligently consulted and compared. The NEW AMERICAN CYCLOPEDIA is not founded on any European model; in its plan and elaboration it is strictly original. Many of the writers employed on this work have enriched it with their personal researches, observations and facts, meeting the eye as it is constantly in use, and the character of exactness of statement, the popular method has been pursued. By condensation and brevity, the Editors have been enabled to introduce a much greater variety of subjects than is usually found in similar works, meeting the eye as it is constantly in use, and the character of exactness of statement, the popular method has been pursued. By condensation and brevity, the Editors have been enabled to introduce a much greater variety of subjects than is usually found in similar works, meeting the eye as it is constantly in use, and the character of exactness of statement, the popular method has been pursued.

In the preparation of the present volume, nearly a hundred collaborators have assisted, including persons in almost every part of the United States, in Great Britain, and on the Continent of Europe whose names have attained an honorable distinction, each in some special branch of learning. No restriction has been imposed on them, except that of abstention from the expression of private dogmatic judgments, and from the introduction of sectarian comments at the expense of the historical character of the work. In this fact, it is hoped will be found a guaranty of the universality and impartiality of the NEW AMERICAN CYCLOPEDIA, which the Publishers do not hesitate to say will be superior in extent, variety and exactness of information to any similar publication in the English language.

PRICE—In Cloth, \$3; Library style, leather, \$5 50; half morocco, \$4; half Russia, extra, \$4 50. Five volumes already been issued, and the remainder will be published as fast as they can be got ready.

WM. B. HOWE, Agent for Detroit.

Booksellers desiring to act as agents, will please address the Publishers.

### Horse Powers, Threshers and Cleaners!

PISTONS AND HORSE, EMERY'S 1 AND 2 HORSE (tread) Powers, Pease's Excelsior Powers, Corn and Cob Mills, Corn Mill and Feed Mill, and all kinds of Agricultural Machinery, Leonard Saw Mill, Leonard's Slat Machines. PENFIELD'S, No. 100 Woodward Ave., Detroit.

### Andre Leroy's Nurseries!

at ANGERS, FRANCE.

THE PROPRIETOR of these Nurseries, the most extensive in the world, has the honor to inform his numerous friends and the public that his Catalogue of Fruit and Ornamental Trees, Shrubs, Roses, Seedlings, Fruit and Flower Stocks, &c.,

for the present season is now ready and at their disposal. Apply as heretofore to F. A. BRUGUIERE, 51 Cedar Street, New York.

### SEEDS, SEEDS!

FRESH SHAKER SEEDS, OF LAST YEARS growth and warranted. Also, Spring Wheat, Sweet Potatoes of several kinds, King Philip, Flour, Dutton, Right Rowed and Sweet Corn, Timothy, Clover, Barley, Peas, &c., at 103 Woodward Ave. Detroit

## 1859. WINTER ARRANGEMENT. 1860.

### MICHIGAN SOUTHERN AND DETROIT, MONROE and TOLEDO RAIL ROAD.

MOMROE, CHICAGO, TOLEDO, CINCINNATI AND CLEVELAND LINE.

With its connections, forms a Through Route from Detroit to Monroe, Adrian, Chicago, Toledo, Sandusky, Cleveland, Dayton, Hamilton, Cincinnati, Pittsburg, Wheeling, Harrisburg, Philadelphia, Baltimore, Washington, Erie, Dunkirk, Buffalo, Albany, New York, Boston, Montreal, Quebec, Portland, Boston, and all points interior, in Ohio, Pennsylvania, New York, and the New England States, and all points West and South-West.

On and after Monday, November 14th, 1859, Passenger Trains will run as follows:

FROM DETROIT: Mail and Express, daily except Sundays, at 9:30 A. M., arriving in Chicago at 10:30 P. M., and Toledo at 12:37 P. M.

FROM CHICAGO: Mail and Express, daily except Sundays, at 6:00 A. M., arriving in Detroit at 6:00 P. M., and Toledo at 8:00 A. M.

FROM TOLEDO: Mail and Express, daily except Sundays, at 8:00 P. M., arriving in Detroit at 6:00 P. M., and Chicago at 10:00 A. M.

Trains from Detroit connect at Adrian with Michigan Southern Main Line for Chicago, with New Albany and Salem Railroad, at the crossing of that line, and at Chicago with all Roads for the Northwest and South.

Connect also at Adrian with Jackson Branch Trains for Jackson.

Connect at Toledo with Dayton and Michigan Road, for Dayton, Hamilton and Cincinnati, with the Cleveland and Toledo Road, for Sandusky, Cleveland, Pittsburg, Dunkirk, Buffalo, Albany, Boston and New York; with Wabash Valley Road for Fort Wayne, and points Southwest, and with Air Line Rail Road for Bryan, Kendallville, Ligonier and Coatesburg.

Trains from Chicago and Toledo connect at Detroit with Grand Trunk Railroad of Sarnia, Toronto, Prescott, Montreal, Quebec, Portland and Boston; with Great Western Railway for Niagara Falls, Buffalo, Albany, New York and Boston, also with Detroit and Milwaukee Railroad, for Grand Rapids, Grand Haven and intermediate Stations.

FREIGHT TRAINS leave Detroit daily except Sundays at 5:50 A. M., arriving in Toledo at 11:10 A. M., and Chicago via Adrian at 3:10 next morning.

Leave Chicago daily except Sundays, at 8:15 A. M., and 3:00 P. M., arriving in Detroit at 9:00 P. M.

Trains are run by Chicago time, which is Twenty Minutes slower than Detroit time.

Passenger's Patent Sleeping Cars accompany all night trains on this route.

Time and Fare the same as by any other Rail Road route.

No change of cars between Detroit and Chicago. Baggage checked through from Detroit to Chicago.

JNO. D. CAMPBELL, GENERAL Supt., Toledo, Ohio. L. P. KNIGHT, Agent, Detroit. 7-1

### THE IMPLEMENT FOR GARDENS.

### THE HAND SCARIFIER.

WE offer for sale the Hand Scarifier, the most desirable and useful implement for gardens, of any that has been invented, and the most perfect labor saver.

Read the testimony of those who have tried it last season: ROCHESTER, OAKLAND, CO., MICH., FEB. 1859.

MESSES. BLOSS & ADAMS: You cannot recommend too highly your Hand Scarifier. It is an invaluable machine for cultivating all root crops down in drills. It works easy, a boy of 15 years old can use it, and do more work than five men can with hoes in the same time. It pulverizes the surface of the ground and kills all the weeds. I had one the last season and speak from experience. A person having a quarter of an acre of garden to cultivate should not be without one, and no farmer or gardener after using one a single hour would be without one for four times its cost.

W. JENNINGS. ROCHESTER, OAKLAND, CO., MICH., FEB. 1859.

MESSES. BLOSS & ADAMS: In answer to your inquiry, "How we like the Hand Scarifier," we reply that we are highly pleased with it. It is the greatest labor saving machine for its cost that we have ever used, or seen. For all root crops sown in the fall it is invaluable. One man with this machine can do more work in one day than five men with hoes, and do it better. We have used it two seasons and would rather pay twenty dollars for one than do without it.

Yours respectfully, JULIEN ADAMS. These implements are for sale, by the subscribers at their retail store, J. B. BLOSS & CO., No. 22 Monroe Avenue, Detroit.

### DRY GOODS AND CARPETS. NALL, DUNCLEE & CO.

Would invite the attention of the Farmers of Michigan when visiting Detroit, to their extra

### FALL & WINTER STOCK OF CARPETS, FOREIGN AND DOMESTIC DRY GOODS,

Embracing every variety of Fancy Silks, Black Silks, Valencia Robes, Bayaderes Stripes, Laces, Embroideries, Hosiery, Shootings, Gait Goods, Kid Gloves, Flannels, Ticks, Printed Lawns, Cambrics, Ginghams, Muslin de Laines, Stella Shawls, Broche Shawls.

### OUR CARPET AND FURNISHING STOCK

Is complete in all its branches. Tapestry Velvet Carpet, Tapestry Brussels do, Imperial Three Ply, Extra Super Ingrain, Superfine do, Fine Ingrain do, Cotton and Wool do.

Silk Damask, Worsted do, Moroccoes, Druggets, Green Baires, Cocoa Matting, Linen and Check Matting, Gilt Shade Cornices, Shade Tassels, Cornices, Rugs and Mats, Window Hollands, Window Shades, Oil Cloths, 6, 12, 18 and 24 foot, Live Geese Feathers, Paper Hangings.

Which we offer cheap for cash. NALL, DUNCLEE & CO., 14-1y No. 14 Woodward Avenue, Detroit.

### BURNHAM & Co., Dealers in all kinds of Agricultural Implements, Garden and Field Seeds, Salt, Plaster, Coal, Water and Stone Lime. Storage and Commission. Warehouse near Rail Road depot, Battle Creek, Michigan.

D. B. BURNHAM.

## THE GREAT WONDER OF THE NINETEENTH CENTURY. PROFESSOR WOOD'S HAIR RESTORATIVE.

Says the St. Louis (Mo.) Democrat: Below, we publish a letter to Dr. Wood, of this city, from a gentleman in Maine which speaks glowingly of the superior merits of his hair tonic. Such evidence must have its effect, when coming from a reliable source. If certificates are guarantees of truth, the Dr. needs no encomiums, nor useless puffery from the press:

BATH, MAINE, Jan. 20, 1856.

Professor O. J. Wood & Co.: GENTLEMEN: Having my attention called a few months since to the highly beneficial effects of your hair restorative, I was induced to make application of it upon my own hair, which had become quite gray, probably one-third white; my whiskers were of same character. Some three months since I procured a bottle of your hair restorative and used it. I soon found it was proving what I had wished. I used it about twice a week. I have since procured another bottle, of which I have used some. I can now certify to the world that the gray or white hair has totally disappeared, both on my head and face, and my hair has resumed its natural color, and I believe more soft and glossy than it has been before for twenty-five years. I am now sixty years old; my good wife at the age of fifty-two, has used with the same effect.

The above notice I deem due to you for your valuable discovery. I am assured that whoever will rightly use, as per directions, will not have occasion to contradict my statements. I am a citizen of this city and a resident here for the last fifteen years, and am known to nearly every one in the city. I am a member of the Baptist Church, and make of the above, with my name attached is at your service, as I wish to preserve the beauties of nature in others as well as myself. I am, truly, yours, A. C. RAYMOND.

BALTIMORE, Jan. 23, 1855.

### WOOD'S HAIR RESTORATIVE.

Professor Wood—Dear Sir: Having had the misfortune to lose the best portion of my hair, from the effects of the yellow fever, in New Orleans in 1854, I was induced to make a trial of your preparation, and found it to answer as the very thing needed. My hair is now thick and glossy, and no words can express my obligations to you in giving to the afflicted such a treasure.

The undersigned, Rev. J. K. Bragg, is a member in regular standing, and pastor of the Orthodox Church at Brookfield, Mass. He is a gentleman of great influence and universally beloved. W. M. DYER.

Brookfield, January 12, 1855.

Professor Wood—Dear Sir: Having made trial of your Hair Restorative, it gives me pleasure to say, that its effect has been excellent in removing inflammation, dandruff and a constant tendency to itching with which I have been troubled from my childhood; and has also restored my hair, which was becoming gray, to its original color. I have used no other article with anything like pleasure or profit. Yours truly, J. K. BRAGG.

The Restorative is put up in bottles of 8 sizes, viz: large, medium, and small; the small holds ¼ a pint, and retails for one dollar per bottle; the medium holds at least twenty per cent. more in proportion than the small, retails for two dollars per bottle; the large holds a quart, forty per cent. more in proportion, and retails \$3.

O. J. WOOD & CO., Proprietors, 312 Broadway, New York. (In the great N. Y. Wire Railing Establishment, and 114 Market St., St. Louis, Mo.)

And sold by all good Druggists and Fancy Goods Dealers. 45-8m

### THE WILLIS' STUMP PULLER

Is the most powerful and most economical machine in use for pulling stumps, and will clear a field in less time than any other invention of a like kind.

These stumps have been pulled with this machine in an hour and fifteen minutes. The undersigned will sell machines and rights to use and manufacture in any part of Michigan except the counties of Hillsdale, Calhoun, Washtenaw, Jackson, Calhoun, Kalamazoo, Van Buren, Macomb, Genesee, Shiawassee, Saginaw, Muskegon and St. Clair, which are already sold.

All necessary information as to prices, and mode of using, will be given on application to DAVID BLACKMAR, Ypsilanti, or to R. F. JOHNSTONE, Editor Michigan Farmer.

The Machines are manufactured at the Detroit Locomotive Works from the best Lake Superior Iron. [3]

### DAINES' AMERICAN DRAIN TILE MAKER.

The Best and Cheapest Tile Machine in the World.

Forty-one first Premiums awarded to it at State and County Fairs. First Premium at the National Fair, at Louisville, Ky., 1857.

The TILE MACHINE invented by JOHN DAINES, of Birmingham, Oakland county, Michigan, is now being manufactured in the most thorough manner, and is offered to the farming community as the

Cheapest, Most Labor-Saving and Most Complete Invention.

and enabling farmers to make their own Tiles, that has yet been put before the Agriculturists of the United States, at a reduced price.

These machines are made of iron, are easily worked, any man being able to manufacture a first rate article after a few hours practice.

They cost delivered in Detroit only \$100. They have two dies, for three and four inch tile; and extra dies to accompany the machine cost \$2.00 each.

These machines will manufacture per day, according to the size of the die, from 100 to 250 FEET OF HORSEHOE OR PIPE TILE. The machine weighs but 500 pounds, and can be packed and sent to any part of the United States, or to foreign countries, as easily as a piano. With this machine, any farmer who has a fair quality of clay on his farm, can manufacture his own Tiles at a cheap rate, and easily save the price of the machine when in operation, takes up no more room than an ordinary sized kitchen table; it may be worked by two or three men, as may be found most convenient and economical, or a man and two boys can keep it in full operation.

For Simplicity, Durability, Economy, Cheapness, and amount of work, this Tile Maker Challenges the World!

At the present time, when thorough draining has become necessary on alluvial lands, it offers the simplest and cheapest means of furnishing farmers with a draining material far superior to any other material now used for that purpose.

Applications for these machines may be addressed to JOHN DAINES, Birmingham, Mich.

### J. L. HURD & CO. DETROIT MICH.

Produce and Shipping Merchants Agents and Consignees for the following Lines:

AMERICAN TRANSPORTATION COMPANY. CAPITAL \$300,000.

WESTERN TRANSPORTATION COMPANY. CAPITAL \$300,000.

AND THE NEW YORK CENTRAL R. R. Co.

We would respectfully announce to the Millers, Merchants and Manufacturers of Michigan that the recent reduction of Canal Tolls on the Erie Canal, will enable us to carry eastward, from Detroit,

FLOUR, WHEAT, CORN, OATS, WOOL, ASHES, HIDES, And all other products of Michigan, at prices much below those of former years. Our lines are THE MODEL LINES OF THE COUNTRY.

J. L. HURD & CO., Foot of Second St.

WE KEEP CONSTANTLY ON HAND THE different kinds of Drain Tile, at PENFIELD'S, 103 Woodward Avenue.

## AYER'S AGUE CURE.

FOR THE SPEEDY CURE OF INTERMITTENT FEVER, OR FEVER AND AGUE, REMITTENT FEVER, CHILL FEVER, DUMB AGUE, PERIODICAL HEADACHE, OR BILIOUS HEADACHE,